PHYSIOLOGY *VERSUS* METAPHYSICS IN RELATION TO MIND.

BY WALTER HAYLE WALSHE, M.D.

(*Continued from page 3.*)

(2) OF theological speculation concerning the nature of mind and soul it may, for more than one reason, be perhaps advisable to say but little. And theology, in truth, regarded as a branch of general philosophy, seems to possess no special or distinctive standpoint of its own in such an inquiry. Its teachings must be a compound of fragments of ecclesiastical dogma and the current metaphysics of the day, all objective scientific data being systematically rejected by theologians as either insignificant or heretical. No special or distinctive standpoint, we say; for neither theosophist nor serious theologian of any school professes, or has professed, as far as is commonly known, that a direct revelation of the *nature* (as distinguished from the *existence*) of the soul has ever been vouchsafed to man. And that, wanting this form of guidance, mere theological erudition may lead astray even an earnest Anglican divine in inextricable mazes of untenable paradox, the celebrated disquisition of Bishop Warburton[1] concerning the immortality of the soul will, it has been conceded even by ecclesiastics, for ever remain an unquestionable proof.

Still, the claim of theological speculation to a hearing in this matter cannot be gainsaid. And it must be humbly admitted that a layman is very imperfectly qualified to judge with impartiality concerning the logical justness of ecclesiastical teaching, inasmuch as *ex professo* Churchmen frequently start from premisses more or less completely at variance with those accepted by the mass of the outside world. With extreme diffidence, then, the following outline of ecclesiastical opinion is set forth.

The early fathers of the Christian Church all, without exception, believed in the existence of soul as something superadded to body. Many of their number held that the soul must be a *corporeal* substance, not on any supposed subjective or objective evidence, but because to maintain the contrary would clash with the doctrine of future rewards and punishments, inasmuch as "only matter could be susceptible of physical pain and pleasure."[2] Other classes of Churchmen, on the contrary, believe the soul to be "purely *spiritual*, but liable to be disturbed by its *material tendencies*"; while another sect maintains that the soul is "spiritual in itself, but *enclosed in matter* because of sin." For Tertullian, apparently the most thoroughly materialistic of his compeers, "What is not body is nothing"; "the soul is corporeal and has the human form, the same as its body," while its component material is "delicate, clear, and ethereal." These latter attributes are in all probability ascribed to the soul in order to evade the difficulty of imagining a corporeal substance intangible and invisible; though there were not wanting in Tertullian's time persons who stoutly maintained that they had actually *seen* the soul in its flight from the body at the moment of somatic death.

For Origen, who seems to have acted the part of a transition-thinker between the early materialist and the later spiritualist fathers, the nature of the soul was confessedly a profound puzzle; but he seems in the end to satisfy his doubts by assigning it a middle place between ordinary matter and spiritual essence. One theologian of about this period knows the nature of the soul so thoroughly that he has actually ascertained it to be "composed of air"; while another ventures no further than to divine that its component matter differs from the matter of ordinary bodies.

According to Augustine, the soul is non-extended, and therefore not material, and, as having existence and not being material, is spirit,—is wholly present in the entire mass, and also in every particle of the body, yet acts on this body, not directly, but *through some corporeal substance* [materialistic ideas therefore even yet not wholly discarded] intervening between itself and the actual body, the nature of which intervening substance students of his works are, as might be anticipated, unfortunately left in the main to work out for themselves, the suggestion (*ignotum per ignotius*) by its inventor that it consists of "light and air," being hardly calculated to satisfy even the most simple of mortals.

Bain considers that Gregory of Nyssa, in maintaining the thinking power does not belong to matter, otherwise matter generally would exhibit it, made "a happy hit."[3] Why happy? Does it not rather seem the learned father made an unfortunate slip? As well might he have taught that the bile-secreting power does not belong to matter, or matter generally would form bile.

Mamertus, a French priest of the fifth century, one of the pioneers of the non-material school, had odd notions of his own: that the soul, unlimited by space, not movable with the body, was possessed of quality but not of quantity, contained the body, &c.

For Aquinas, one of the intellectual lights of the thirteenth century, the soul, not body, but the actuality of body, "pure form without matter," is the instrument of nutritive, sentient, volitional and intellectual action, and is *unconnected with the body*, in which latter character the human soul differs from that of the lower animals.

In the enigmatical phraseology of Calvin the soul becomes a "creation out of nothing, not an emanation; it is essence without motion, not motion without essence." According to the unfortunate Servetus (1509–1553), at once metaphysician, physiologist, and (alas! to his own sorrow) theologian, "it was truly into the *heart* of Adam that God breathed the breath of life *or* the soul," this as yet inchoate soul becoming the "rational soul," when the blood carrying it reached the *base of the brain*, whence it is borne "to the capillaries of the choroid plexus, which contain, or are the seat of, the soul itself."[4] With Swedenborg the "soul was the real man, because the inmost man."[5]

So that, while acknowledging with reverent gratitude the efforts of these pious men, the lay world cannot blind itself to the fact that the spiritualised, ascetic mode of life has helped its votaries no better than the comparatively sensuous ways of ordinary philosophers in reaching an acceptable solution of the solemn problem of the nature of soul, and by inference in eliminating any of the difficulties met with in working out the mechanism of mind. By whatever manner of man handled—by saint and sinner alike—pure introspection proves a practical failure.

And we can now tender an explanation of the apparent paradox stated at the commencement of these remarks. We can understand why metaphysicians, with very few exceptions, and theologians have been, and are, allowed to speculate with impunity on the nature of mind and soul. The former have discovered, and can probably in the future discover, nothing,—they have as a class offended no religious sect by successfully penetrating mysteries, which its chiefs have determined should either be left in their primeval obscurity or solely interpreted after the dogmatic fashion authorised by themselves.[6] The latter have simply played into and strengthened the hands of sacerdotalism by imagining a soul whose nature is in strict harmony with the special tenets of their own special form of religious faith.

(3) However, it is not to be supposed that spiritualism, whether of the purely metaphysical or mixed theological type, held undivided sway from the earliest investigation of mental phenomena till the advent of the existing physiological school. Omitting the atomism of Democritus and the allied speculations of Epicurus, Lucretius, and other early Greek and Roman philosophers, we find that subsequently to the revival of learning views more or less broadly materialistic every now and then contested the field with the exclusively psychic theory of mind. Nor must it be forgotten that the early fathers of the Church, as we have seen, taught materialistic doctrine, not fortuitously, but

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[1] The Divine Legation of Moses. Five volumes. London, 1766.

[2] Bain, op. cit., p. 158. See the whole chapter for a lucid and full survey of the history of theological opinion on the subject: much of it, as is signified by the writer, originally furnished by the erudite Ueberweg.

[3] Op. cit., p. 165.

[4] Servetus and Calvin, pp. 205-209, by R. Willis, M.D., one of the most deeply engrossing books ever produced on that subject of inexhaustible and undying interest, the early history of the Reformation.

[5] The True Christian Religion, No. 607, Lond., 1858.

[6] The Romish hierarchy has always been pitiless to the slightest aberration from the narrow path in which its own creed moves. Kant's works, branded as heterodox, figure side by side in the Papal Index with the most brazen handbooks of vulgar atheism. Besides, it is matter of history that, when at the height of his powers and of his fame, the German philosopher was forbidden by an Order in Council, obtained through priestly influence, from expounding his views either by lecturing or writing,—from illuminating mankind by voice or pen.

with well-considered purpose, their materialism being as downright as any of the present day, differing therefrom only in this sense, that while the original form was imaginary, the existing type is professedly demonstrable. And spiritualistic dogma had a very lukewarm supporter at a much later date in Locke. Locke, in point of fact, steered widely of a total rejection of materialistic views; he in truth suggested, if he did not downright maintain, that the faculty of thinking might quite as easily be directly affiliated to matter as to a given non-material entity (soul), which entity should in turn be itself affiliated to matter.

This mode of escaping a grave difficulty, however, was tentative, timid, a kind of craven *tertium quid*. In adopting it Locke rather admits a leaning towards than frankly adopts the creed, that cerebral tissue plays any actual part in the genesis of thought. The English philosopher, indeed, seems to have been somewhat wavering and unstable in his teachings, whatever the firmness of his convictions may have been, on this fundamental question of mental philosophy. Thus we find him saying "our idea of our soul, as an *immaterial* spirit, is of a *substance* that thinks and has a power of exciting motion in body by will and thought." Elsewhere he maintains it is "no harder to conceive how thinking should exist without matter, than how matter should think." Further on he admits God might, if He pleased, "superadd to matter a faculty of thinking." Yet again he holds that in man (as distinguished from the lower animals) it is in the highest degree *probable*, that the "thinking substance" is "immaterial."[7] Did the dread of priestly denunciation or of social ostracism in an age of bigotry prevent him from freely outspeaking his real convictions? or was he in very fact as unsettled as he seems? It is well worthy of note as matter of literary history that Locke spoke out in the utterances he has actually ventured upon more boldly than Voltaire, who simply affirmed the power of the Omnipotent to make matter think if He so willed it; far from an irreverence even, nevertheless a theological heresy for which the recluse of Ferney endured endless persecution. His exact words were:—"Dire que Dieu *ne peut* rendre la matière pensante, c'est dire la chose la plus insolemment absurde, que jamais on ait osé proférer dans les écoles privilégiées de la démence."[8]

Hume, in turn, metaphysician though he was, decries much of metaphysics as non-scientific and the outcome of vanity and superstition, and would attach but little value to the bulk of its conclusions. And herein appears one instance, among many, illustrating the Scotch philosopher's remarkable gift of anticipating the verdicts of posterity. The declining influence of metaphysics as a guide to the highest attainable truth had indeed become a patent fact long before Comte and the Positivists made their attempt at wholly ostracising transcendentalism from the realms of knowledge, as "idle and mischievous." Despite the critical groundwork so acutely laid by Kant,[9] the more finished structures (as they are held to be) raised by some of his disciples and followers, and the somewhat novel departure of Schopenhauer, Hartmann, and others, the death-knell of pure metaphysical speculation has in some sort been rung by advancing science. Whether the effort of Lewes[10] to "transform metaphysics by reduction to the method of science" is destined, as he fondly imagined, to reawaken life in effete transcendentalism and furnish solutions to all metaphysical problems that can "rationally be stated," time alone can show. Meanwhile, by proposing to "discard all inquiries which transcend the ascertained or ascertainable data of experience," he seems to me to alter the scope and nature of metaphysical inquiry *ab imo*. The verdict of the future in spite of this scheme of rehabilitation will probably continue to be: "Metaphysical questions are either insoluble and should not be raised, or unreal and fantastical, and need not be."[11] Nevertheless, the special quality of certain varieties of intellect will always find its fittest pabulum in speculation of the *a priori* transcendental kind. That as long as mind lasts there will be metaphysicians is certain, but their influence on human thought and on philosophy in general must, *ex naturâ rerum*, grow less and less as positive knowledge advances. And this, despite the knight-errantry of Lewes, and the somewhat arrogant boast of Schopenhauer, that he had "lifted the veil of truth higher than any previous mortal" by the use of the instrument, whereof, a stubborn and unbelieving generation maintains, the funeral requiem may be sung.

But to return to Hume. Divesting himself of the trammels of metaphysical thought, this pioneer in positive philosophy, with a perspicuity and cogency of argument, astonishing in view of the infant condition of cerebral physiology in his day, concludes that varying states of consciousness, thought, and perception depend on molecular motions of the brain; while he regards the name "soul" as the synonym of the "sum of phenomena which constitute our mental existence," and holds there is nothing beyond these phenomena,—the idea of their appertaining to an intervening substratum of "substance" (or soul) "being a mere fiction of the imagination."[12]

Priestley, specially qualified by his physico-chemical studies as, so to speak, *an advocate of the rights of matter*, argues from its unquestionable activity of other kinds (attraction, repulsion, and the whole ground of molecular dynamics), that, especially as sensation and perception are unknown except as attributes of organised substance, matter must be held capable of effecting the process, thought.

Cabanis (1757–1808), throwing the material doctrine into the most uncompromising form, maintained that the brain-substance, assuming a state of activity under the influence of impressions received from without, elaborated through this activity the product, thought—just as a gland under nerve-stimulation pours forth its special fluid product.[13] Thought became in his hands simply a brain-secretion, no intermediate help on the part of a soul, or other *tertium quid*, either dependent or independent, being appealed to. The materialist gauntlet could not have been more aggressively thrown down. That a doctrine clashing so sharply with theological and Cartesian spiritual teaching should startle the lay, and be received with a shriek of horror by the sacerdotal, world was to be expected. It did more. It proved profoundly distasteful æsthetically. That man's noblest inheritance, the power of thinking (a power supposed by the mass of mankind to be their own solely, to the exclusion of all other animals), should be in any fashion assimilable to the ignoble functions of producing bile, gastric juice, and saliva, revolted his *pride of species*. The insulting dogma was rejected ignominiously, but apparently rather in obedience to the impulses of emotion and sentiment than as the result of victorious argumentation. The work of the scientist of to-day is calmly to inquire what, if anything, of truth, what of fallacy, subsequent investigation may have shown to underlie this formula of thought-secretion.[14]

In form less repellent, and with philosophy more cautious, Lawrence, at a somewhat later period, wrote the memorable words, "Who knows the capabilities of matter so perfectly as to be able to say that it can see, hear, smell, taste, and feel, but cannot possibly reflect, imagine, judge?"[15]

Our brief historical survey would scarcely be complete, even in its incompleteness, if the creed of agnosticism were wholly forgotten. This form of negative faith finds an unflinching advocate in Huxley, who, while proclaiming in no doubting tone our actual ignorance of the nature of mind, offers but feeble encouragement to any enthusiast disposed to enter on the too probably thankless task of its investigation. "We know nothing more of the mind than that it is a series of perceptions. Whether there is something in the mind that lies beyond the reach of observation, or whether perceptions themselves are the products of something which can be observed, and which is not mind, are questions which can in no wise be settled by direct observation."[16]

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[7] Fowler, Life of Locke, Morley Series, p. 139, 1880.

[8] Dictionnaire Philosophique, art. Ame. Perhaps no more striking human testimony to the reality of the Godhead is to be found in literature than in the following lines of the man whom it has been the fashion, with either egregious ignorance or dishonesty, to denounce as an atheist:—

> "Ce système sublime [d'un Dieu] à l'homme est nécessaire.
> C'est le sacre lien de la société,
> Le premier fondement de la sainte équité,
> Le frein du scélérat, l'espérance du juste.
> Si les cieux dépouillés de leur empreinte auguste
> Pouvaient cesser jamais de le manifester,
> Si Dieu n'existait pas, il faudrait l'inventer."

[9] It must be remembered that Kant's *opus maximum*, the Critique of Pure Reason, professed rather to unfold the method by which a system of philosophy may be reached than to expound one already achieved.

[10] Problems of Life and Mind, 1874.

[11] Graham, Creed of Science, p. 220.

[12] Huxley, Life of Hume, p. 171.

[13] Rapports du Physique et du Morale, p. 122. Ed. Cérise. Paris. 1883.

[14] Emotionalism plays a larger part in establishing philosophic and religious creed than is commonly dreamed of. Robert Hall "buried his materialism in *his father's grave*" (Bain, op. cit., p. 189); Figuier's convictions underwent an absolute reversal through the *death of a beloved son* (Le Lendemain de la Mort, 4ème ed., préface. Paris, 1872). Of the great unknown how many are similarly influenced, who shall tell?

[15] Lectures on Man, 1819.

[16] Life of Hume, p. 63.

The Positivists, again, eschewing both spiritualism and materialism in this field, decline even to investigate the mystery of mind, as lying beyond the pale of possible comprehension, while they scout with withering scorn the assumption of the metaphysicians that they have settled the problem of mind by calling it spirit—a word which is for Comte and his followers *vox et præterea nihil*.

Such being in the main the acquisitions in the past, what is the reasonable prospect in the future? Are the nature and genesis of mind and the nature of the soul problems which it is likely will ever be solved? The negative appears, unfortunately, far more probable than the affirmative. Both these arcana of to-day seem only too likely to maintain their places in the category of the for ever unknowable. The impotence of pure metaphysics is beyond dispute. A thousand years of introspective dissection of self-consciousness and of the play with bewildering farragos of words more or less equivocal, and of phrases more or less conventional, have ignominiously failed to reveal the essential nature of one or the other. The resources of theology have in turn merely begotten a series of quasi-metaphysical hypotheses, tempered—nay, distorted—in such fashion by dogma that, however satisfactory they may seem to the sacerdotal mind, they prove, when weighed in the balance of lay reason, contradictory, mutually destructive, and untenable. And, next, Positivism, the latest outcome of critical philosophy, rejects even the consideration of the problems altogether. So that, on the one hand, if *contrary to probabilities*, the function of thinking is ever to be followed step by step from the determination of the mode of action of the exciting cause to the analysis of the evolved product; if we are ever to possess in its entirety the natural history of an idea, the totality of the dynamic and statical phenomena of its parentage, birth, existence, substance, correlatives, decline, cessation, and *reliquiæ;* if we are ever to reach a satisfactory definition of the word "mind,"—these successful issues are to be looked for essentially in the data of biology. And, on the other hand (inasmuch as direct revelation has neither come nor has been promised concerning the *nature* of the soul or the *method* of its acts), if that nature and that method are ever destined to be made matter of demonstration, then out of these same data alone can such identification be expected to spring. And this will hold true whether the soul be really a something superadded to and intervening between brain and thought, or merely an ideal abstract equivalent of the sum total of concrete manifestations of cerebral activity. Biology seems to be, in truth, *the working instrument of possible indirect revelation granted to man in respect of this special enigma by the Almighty First Cause.* Metaphysical inquiry cannot be expected to achieve any such results, for it has so far failed to make even a substantial commencement, and it is *hopelessly stationary.* Biology may conceivably make vast advances towards accomplishing the task, for it has already done much and it is *eminently progressive.* But what precise task? We may (somewhat to anticipate our final conclusions) frankly concede that biological science, even if the ranks of its votaries be now and then swelled by the accession of men endowed with genius of the exalted originality of Darwin, cannot be *positively assumed* to be capable of revealing more than material phenomena, their nature localisation, effects, and accidents, their mode of association and sequence and their governing laws,—the intimacy and precision of knowledge of these furnishing the measures of the activity of special research, the advance of time, and the amount of storage of inherited data. The science will continue to demonstrate how vast is the part played by conditions and agencies, material in essence, in the evolution of thought; and will in all probability supply evidence that that part is closer, more comprehensive, and more varied than has yet been even approximately proved. It will gradually conduct us to the possible limits of objectivity,—show us the boundary line where demonstration ceases to be attainable, and where introspective guesswork must take its place. But scarcely can we in our most ardent moments of scientific enthusiasm hope through physiology to fathom the mystery to its lowest depth—to grasp the true nature of the force that sets to work the dynamic and statical activities evolving mental phenomena out of brain—to identify the potentiality that vivifies cerebral pulp into an emotional, volitional, and intellectual agent, or seize the link that unites thinking substance and thought. No! even if *argumenti gratiâ* the hypothesis of Hooke, that ideas themselves are actually material substances, be accepted, there will remain a something behind, giving to the brain-matter power to throw off that kind of substance, the nature of which something will elude our grasp. But are we more enlightened concerning the intimate nature of the special potentiality attached to any structure in the body? What do we really know of the force that evolves motion from muscle? Will any conceivable amount of success in working out the histology and chemistry of liver-tissue give us the veriest glimmering of a notion why hepatic cells should produce bile and not saliva? And just as in regard of the wider phenomena of life, of which mental activity is but a part, though a large part, so science will in all surety continue long, long (though possibly not for ever) forced to accept agnosticism as the only attainable creed in the sphere of ideation—the *ultima Thule* of loftiest physiology.

ERRATUM.—Page 2, col. 2, line 7 from bottom, instead of "groping," read "for peering."

Lecture

ON THE

DIFFERENCE BETWEEN EFFUSION IN THE RIGHT AND LEFT SIDES OF THE CHEST.

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GENTLEMEN,—I hope to be able to show you to-day that it is not a matter of indifference into which side of the chest an effusion of liquid occurs, and that we ought not to pass over certain consequences of pressure on the right or left side of the mediastinum respectively, which have hitherto been, so far as I am aware, unnoticed by observers. The signs of effusion in the chest are well known to you; indeed, I am constantly gratified by the almost unfailing certainty with which those of you who hold offices in the wards discover pleuritic effusion, or hydrothorax. You are so surely right in your diagnosis as to show that the means of recognition are capable of certain, I will not say of easy, application. Excuse me if this seems to detract from the credit due to you individually; but, in fact, I may as well say that in nearly all cases it would be rather a discredit for a man to make a mistake about the presence of water in the chest; and we may, indeed, be glad to be able to assure ourselves of the fact when water is thus present, because this is one of the meeting-grounds of medicine and surgery. Happily, by means of a simple and comparatively painless operation the liquid may be removed from the thorax. Perhaps, if you estimated the value of a surgical operation by the proportion of relief to suffering, there is none of higher worth than this of thoracentesis; and the physician is here proud to guide and enlighten the surgeon. Medicine here touches surgery, and so enters into regions of more immediate sensibility, and the general inadequacy it is apt to show in its higher ranges does not appear so far-reaching nor so oppressive. This side of medicine, which is hand in hand with surgery, is, indeed, always the most satisfactory. Nay, sometimes it seems to me as if the medical mind describes the kind of curve which is called an hyperbola, and that the finite visible and measurable part of this curve is in the region which medicine shares with surgery; whilst the other side of the hyperbolic curve, that which loses itself in the infinite, affords scope for a range of greatness more proper to medicine, allowing play for electro-doctors and room for mastership in dyspepsia, and range for skill in the number of minutes tea should be brewed, and for precise propriety in porridge and potatoes, with other details which, but for infinitude of range, might seem trivial to anyone wanting in faith. But with faith nothing seems trivial. Is not faith the only faculty that can follow hyperbolic curves through the infinite side of their course? A bishop once told me that faith is not a faculty, but he did not tell me what I ought to call it.

Now, surgery is not easily induced to follow medicine in the infinite side of the hyperbola. Surgery has the advantage

of running its career in simple and easily realisable lines of usefulness, defined and exact in all parts of the course, like the curve of a circle, often quite a little circle, as where an almost topheavy surgical greatness is founded on a very small specialty; and how useless and vain it must appear to little-circle surgery for great medicine to try to make the infinite side of its hyperbolic curve coincide with one of these little specialty circles, when even the finite side of the curve will no more coincide with the little round of such surgery than the hyperbolic curve which the sidelong view of a catheter reminds one of would coincide with the little circle suggested by the section across its axis. But in dealing with the thorax the surgeon is dependent on medical diagnosis, and happily he may yet expect further indications of opportunities of giving relief, which are not yet within his range. The means and methods of medical diagnosis are fortunately here capable of being communicated and tested, and herein was the great and ever-memorable benefit conferred on medicine by the immortal Laennec, in that he enabled physicians to employ certain methods mutually comparable, and to set up standards that are accurate and ascertainable. And the reverse would be any service which those would render who lend meretricious authority to the vague and indefinite. Unhappily, medicine is often compelled to take refuge in expressions that are vague; and in practical arts the great thing is to be equal to the occasion. And then, whatever may be the passing occasion, if there is no evident want of gravity we may claim that an apparent adequacy is shown, although in obscure affairs it might not seem worth the exhibition; and though frivolity is certainly grimly out of place in our profession, we owe it to ourselves to form a right estimate of the gravity of what descends to us, and, in the process of pondering, that which is of little weight may be expected to move and turn lightly; and yet no harm will be done if what comes on with one easy puff may be dismissed with another, provided all takes place in what Shakespeare so sweetly calls the "modesty of nature." Now, for healthy life there must, of course, be adequacy of the several functions, and by adequacy of each function I mean such a proportion of the function as will produce with the other functions a physiological balance. I need hardly say that such a balance is necessary to healthy life. For instance, pulmonary adequacy is necessary, and on the other hand is interfered with by whatever reduces the proportion of pulmonary efficiency. And I might say a great deal upon pulmonary adequacy if I had nothing more definite to communicate. However, I wish to fix your attention on one particular, and at any rate undoubtedly ascertainable, point in the history of that kind of pulmonary inadequacy which arises from pressure of liquid within the pleura.

There is no greater satisfaction within the province of the physician than that afforded by the certainty with which he can know that there is liquid in the pleural cavity. So much turns on this knowledge. The life of the patient may entirely depend on a sufficiently early recognition of the presence and pressure of liquid in the pleura, and, as I have said, you do know very well the several physical signs of liquid in the pleura, and if I ask, you will answer me that, taking them in the order of their constancy rather than with any attempt at logical sequence or division, they are: first, dulness on percussion of the seat of the liquid; second, reduction of the intra-pulmonary sound, as heard over the liquid; third, signs of distensive pressure in the part occupied by the liquid; fourth, any sign of change of level through gravitation. But all these criteria are well known to you, and for the most part are easy of application. And in a large majority of cases no serious mistakes can arise, unless through the commonest cause of all mistakes, carelessness, the result of preoccupation, or of inadvertence. Nevertheless, it may be as well that you should not be led to rely too entirely on first impressions of the trustworthiness and invariability of all these criteria in your means of diagnosis, nor to expect that everything will always happen just as it ought on the supposition that you really understand all about the physical signs of the chest, and fully comprehend how they all are brought about as though you yourself had peeped behind a show and seen how it is all done. For there are occasions when the signs are not entirely harmonious, and when each one of them has to be valued separately, and when they may have to be weighed more or less against one another. It would take me too long to develop the whole truth of this passing remark, and I will only justify it with the object of putting you on your guard against a too easy assumption that things will always turn out as you might expect. You will have to become aware that the means of judgment occasionally conflict, and you must not settle into the notion that we now know all about the physical examination of the chest. Thus, the other day we had an example, in which we, all of us who examined the case, agreed together that the amount of intra-pulmonary sound yielded to auscultation by the voice and breathing was distinctly greater over a part of the chest where liquid was so certainly present that we were able to draw it off. The preponderance of sound was not great, but it was sufficient to make us all sure of it. And another very curious fact was noticed in this case—namely, that there was an exceedingly well-marked pleuritic rub over the whole area where the liquid was so certainly present that we could draw it with a morphia syringe, and no rub could be heard in the parts whence no liquid could be drawn. Now, seeing that the rubbing sound is usually supposed to be caused by the direct friction of the two rough pleural surfaces against each other, it appears very strange that we should be able to draw liquid from between such practically level surfaces in sufficiently close contact to rub together and produce a loud sound by their friction; at least it would seem impossible that you should find liquid largely present where the rub is heard, and only in that part. Your natural expectation would be in accordance with the rule given by Dr. Frederick Roberts in his most valuable work on the "Practice of Medicine," "Friction-sound may, or may not, be heard at the margin of the dulness." You would never anticipate that the friction would be found only over the dull area where liquid was present. Yet this was unquestionably the case in the example I am speaking of. Neither was it a single instance, for I have frequently demonstrated the same fact to you; so that I am ready to raise the question whether the so-called pleuritic rub is really at all due to rubbing—whether it is not a creaking of the lymph on the pleura when it is stretched by the lung in inspiration. There is a fact which we have frequently noticed together, and which seems to me to point to the same interpretation. That fact is the occasional disappearance of a pleuritic rub, after a number of extra deep inspirations. Trousseau remarks upon this in his Clinical Lectures, and it is undoubtedly real; he suggested that the hard rubbing due to the strong inspirations would rub away the roughness of the pleura, but it is difficult to suppose that such an amount of force as this implies would be exerted upon the surfaces and it seems to me more likely that the fibrin stretched by several deep inspirations may cease giving out a sound through having yielded to the stretching.

Another point to which I would direct your attention is the degree in which the dulness on percussion that characterises effusion is overpowered by extensive resonance in the neighbourhood. A great resonance will invade the margin of a dulness. This is especially observable in ordinary cases of effusion in the left chest, where the angle of the left pleura overlies a flatulent stomach. I have repeatedly shown you that liquid may be drawn under these circumstances with a morphia syringe from a point where the resonance is full and clear. In cases of pyo-pneumothorax, when the proportion of air to fluid is large, this proportion will appear to be larger than it is if you estimate it only by the dulness on percussion. The resonance of the large air-space overpowers the dulness in its immediate neighbourhood.

One other point I would draw your attention to is with reference to the effects of change of posture on the level of liquid in the chest. I think you will find that as a general rule the effect of change of posture is not very evident in an ordinary case of liquid effusion. What we observe is that any change of level in the liquid is usually slow. Thus, if the patient has the back of his chest dull up to the angle of the scapula from liquid effusion gravitating to the dependent part of the chest as he lies in bed, and if you cause him to turn on his face you will generally find that the dull part does not become resonant, certainly not at once; if you allow a considerable time to elapse, leaving him in the new posture for half an hour or more, resonance may appear in the infra-scapular region of the back. Now, I think you will further find that when the level of liquid in the chest shifts instantly with every change of posture the case is one of hydro-pneumothorax. When the level shifts rather quickly, but with an appreciable interval, the case is probably hydrothorax; at least, there is probably no lymph present to bind the pleural surfaces above the effusion. On the other hand, when there

is no shifting of the level of the liquid, the effusion is probably caused by higher degrees of inflammation, and lymph of pleuritic origin has bound together the apposed surfaces of the pleura above the seat of the liquid, and so enclosed it in its place. By this observation some service may be rendered in the diagnosis of the conditions you may have to deal with. But all this refers equally to the two sides of the chest; whereas the lapse of time reminds me that my object in this lecture is to point out to you a hitherto unnoticed difference between the effects of effusions on the two sides—a difference that is not without importance. I mean a difference founded on the fact that the heart in the mediastinum offers its right side to pressure from the right, but its left side to pressure from the left. Those of you who have studied many cases of effusion in the right and left chests respectively will have been struck by the fact that when effusion is on the left side the heart is displaced to the right in a quite obvious way and to a great extent. Indeed, in effusions on the left side this is one of the most important of the means whereby we recognise the nature of the case. But when the effusion is on the right side of the chest you will not fail to have noticed that there is exceedingly little or often no sign of displacement of the heart to the left; whilst at the same time it is more difficult than usual to find the beat of the heart at all; whereas, when the heart is displaced to the right by a left-side effusion, the beat is not only carried over, but is for the most part also increased in vigour.

Now, the proposition which I have to lay before you is that when liquid is poured into the left chest, and the heart's beat is transferred towards the right side, there is reason to believe that this apparent displacement is not altogether due to the movement of the heart towards the right side. And conversely when liquid in the right chest fails to move the beat of the heart towards the left side this failure is not simply due to any inability of the heart to move to the left. And in order to rightly apprehend what has occurred under the several circumstances we must remember that the heart is double, and that one side of the heart receives the blood after it has passed through the other. We must remember that the blood courses into the right auricle and through the right ventricle to reach the left auricle, and so the left ventricle. In short, that in order for the left side of the heart to receive blood the flow through the right heart must be sufficiently free. So that an obstacle to entry of blood into the right heart would tend to reduce the size of the whole heart; but an obstacle to the entry of blood into the left heart would tend to retain blood in and so to overfill and enlarge the right heart.

Let me direct your attention to another point which must be taken into consideration if we would understand the differences between the two sides of the heart in the degree in which they are respectively obnoxious to pressure on the one or the other side of the mediastinum. Excuse me if I now assume that you want reminding of a few anatomical facts. If you remove the pericardium from the left side of the mediastinum, you will find that the parts exposed are the left auricle to a large extent, and the left ventricle to a less extent, also a part of the pulmonary artery. If you remove the pericardium from the right side of the mediastinum, you will see that the parts exposed are the right auricle and the right ventricle. Severe pressure on the left side of the mediastinum will then influence chiefly the left auricle and partly the left ventricle, and the origin of the pulmonary artery, but pressure on the right side of the mediastinum will tend to impede the flow in the right auricle and right ventricle. If you examine the parts more closely, you will see that there is another point which should not be overlooked. You will find that the left auricle is in a more fixed position than the right auricle, so that pressure upon it will be less easily escaped from by yielding of the parts around. You will observe that the left auricle is rather tightly packed in between the spinal column posteriorly and the root of the lung superiorly, its own ventricle inferiorly and the great arteries anteriorly. On the other part the right auricle is in a more forward position in the middle of the chest. You will remember that the great vein, from the lower half of the body, goes through the diaphragm, almost at its middle, in order to reach the right auricle. The right side of the heart, and especially the right auricle, are far more subject to distension than the left side of the heart, and particularly than the left auricle, because the largely varying freedom of circulation within the lungs requires a correspondingly changeable accommodation for the varying volume of blood, delayed in the auricle in greater or less quantity according as the action of the thorax is easy or laborious; and this varying accommodation is obtained by making the right heart, and especially the right auricle, much freer in its relation with surrounding parts than is the case with the left heart, and especially with the left auricle. There is nothing more characteristic of the divine ease of sufficient power which governs organisation in the living frame than the unembarrassed way in which this problem is treated, so that the centre of circulation, whose constancy and equability of action are needed to make life possible, is left to the play of every over-full inspiration, rising and falling with the fulness of the breathing.

The left auricle, then, is more fixed than the right, a clinical fact of great importance in the estimation of murmurs about the heart in examination for life insurance, &c. I mean on account of the way in which you may have the entry of air into the left lung divided into short periods by the beat of the heart, so that the respiratory murmur in the left lung has the rhythm of a cardiac murmur.

There is a class of cases in which the entry of air thus divided accompanies the heart's action in a manner so true, that it is not only very easy to mistake the respiratory murmur for a cardiac murmur, but even rather difficult to avoid the error. The subjects in which you will meet with this false cardiac murmur are mostly young men who have done too much athletics, and especially young men who have done too much athletics when in a state of nervous debility. There is no importance to be attached to this condition, except through one's liability to be deceived by it. I want you now to notice that it is only on the left side that you ever find this division of the respiration by the beat of the heart; and I want to point out to you that this is due to the fact that the left auricle is so tightly packed in its place that when it is distended it is obliged to encroach upon the left bronchial tube, whilst the right auricle, when distended, does not encroach on the right bronchus, because it is much more movable, and this although, as we have seen, the right auricle is very much more accustomed to great distension than the left, and, indeed, the looseness of its connexions is rendered necessary on account of the always varying size of it under even ordinary efforts, much more under sustained efforts, such as athletics or mountaineering, or swimming, &c. Notice, however, that where the great vein passes upwards through the diaphragm the spot chosen for the vein to pass through is in the tendinous central part of the diaphragm. It would be plainly out of the question to send the vein through the muscular flesh of the diaphragm, as every action of the muscle would stop the flow; but you may observe that where the vein is thus passing upwards through a rigid tendinous ring a lateral pressure immediately above the ring would tend to bend the vein sideways at a sharp angle at the tendinous ring, so that pressure of liquid from the right pleura would thus tend to stop the inferior cava. But on the other hand, the superior cava brings blood from the more essential parts of the frame into the right heart downwards in a direct course which is not subject to any sharp bending by lateral pressure. Observe, too, that the superior cava at the top of the chest would, when the chest is upright or reclining, suffer a relatively small degree of lateral pressure as compared with that exerted upon the lower cava. Some such arrangement is needed to render life possible in cases of great pleuritic effusion, and it is on account of this arrangement that you will find the vessels of the neck showing little signs of engorgement in even extensive effusions in the pleura. The forcible pumping action of the chest through the attendant dyspnœa causes the relatively unimpeded blood of the jugulars to move at each forcible inspiration into the right auricle, and, in short, the impediment tells below the diaphragm, where you find the liver large and the veins of the legs congested.

Thus, to sum up, pressure from the left will be very effectual upon the left auricle, whilst pressure from the right side of the mediastinum will tell upon the right auricle, although its influence will be less effectual on account of the greater yielding which the position and attachments of the right auricle allow. And now, at the risk of being tedious, I will further draw your attention to the fact that the course of the pulmonary artery to the left exposes its trunk to pressure from the left side of the mediastinum—pressure which, so far as it is effectual, will tend to retain blood in, and so to enlarge the cavities of, the right heart.

Now all this being clear, let us consider what must happen when liquid collects in large quantity in the left chest.

When it reaches a great amount and rises so as to fill the chest, we then see evidence of its pressure; for that side of the chest is distended and its intercostal spaces are flattened. But at the same time pressure of the liquid on the mediastinum is shown by the heart going over to the right side of the chest, often so much that the beat of its apparent apex is found at the right nipple or even beyond. I say its apparent apex, for I have never been able to find evidence that in these circumstances it has the direction of its axis changed so as to point the apex to the right. Some years ago, when demonstrating a case of extensive left pleuritic effusion to the class of morbid anatomy, I made this same remark, that the heart's apex is not directed to the right, but when the chest was opened in such a way as to exhibit the parts undisturbed in the position they occupied, I was rather surprised to find the apex of the heart pointing very decidedly to the right, although the heart itself was little displaced to the right. I had never seen this before, but on further examination it turned out that the subject of the demonstration was an example of transposition of the viscera, the heart pointing to the right and the liver being on the left side, &c.; in fact, *on avait changé tout cela* in the case. Some describers teach now that by extensive left pleuritic effusion the apex of the heart is turned so as to point to the right side. But that is not my experience. However, whether this be so or not, the presence of the heart far away to the right of its usual position is clinically very manifest, and it is on this that I wish to fix your attention—it is an indubitable proof of the great force which the mass of liquid exerts in its pressure on the mediastinum.

Now our teachers always speak of this as if the heart were bodily pushed over so as to occupy a new position through simple displacement, but I wish to show you that a large part at least of the change is due to the heart's right cavities being greatly distended because pressure of the fluid on the left auricle impedes the entry of blood into the left cavities. There is no doubt that the position assumed by the heart is due to pressure, and if that pressure is so great as to actually push the heart several inches across from its place, then surely that pressure must be great enough to seriously interfere with the entry of blood into the left auricle, fixed as I have shown this to be.

But it is not only in this theoretical way that you can convince yourselves of the truth of what I am saying, but I will ask you the next time you examine such a case to notice whether it is not true that when the heart is found beating far to the right of its proper position you at the same time obtain evidence of its presence under the sternum and to the left of the sternum, so that if you employ your means of measurement by auscultation, &c. of the extent of the heart's contact with the parietes, you will find that there is proof that the heart is laterally extended, at the same time that it is apparently displaced to the right. I do not mean to assert that there is no displacement, but I wish to direct your attention to the extension in width of the heart, of which you will find indubitable evidence, and I will presently ask you to consider some possibly important consequences of this distension of the right heart in left side effusions.

If now we consider the other case of effusion into the right cavities, I need scarcely say that fluid in the right chest will offer the same evidence of pressure in distending the side and flattening the intercostal spaces as the same amount of fluid will offer in the left chest; and there can be no doubt that it also presses as forcibly on the right side of the mediastinum as the same amount of liquid would press on the left. Nevertheless, when the right chest is filled with liquid you will have occasion to be surprised at the smallness of the apparent displacement of the heart towards the left. Let us consider the circumstances attending this displacement, and the cause of its smallness will, I think, be evident to you. For when liquid is collected in the right pleura in amount large enough to cause such pressure as the left side effusion best reveals, but which right side effusions equally exert, then this pressure must, in thrusting the heart to the left, tend to compress the right auricle, and so to impede the entry of blood into the right heart; but this impediment to entry of blood into the right heart will to the same degree prevent blood entering the left heart, and so the whole heart will be subjected to reduction of its blood-supply, and rendered smaller in size. So that whatever movement to the left is caused by the thrust of the liquid on the right is neutralised by the diminution of the contents of the heart, and therefore of the size of the whole heart; and, in fact, the greater the accumulation of liquid in the right chest the more severe is the pressure on the right auricle, and so the smaller is the cavity and the feebler the beat of the heart, and the less is the evidence of any extension of it towards the left side; and in fact you will find in these cases that the heart is not only little displaced, but its beat is enfeebled.

So far I have dealt only with the bearings of this relation of the heart to pressure from the right or left chest as a matter of interpretation of clinical facts. But there are bearings of all this which qualify seriously the general character of effusion in the right or left chest respectively, especially as to the kind of danger that is to be apprehended from extreme degrees of pressure upon the left or upon the right side of the mediastinum. For pressure on the right side of the heart will plainly tend to produce the dangers of cardiac anæmia; whilst pressure on its left side will equally plainly tend to produce the dangers of right side engorgement. And thus one threatens to kill by deficiency of blood in the whole heart, and the other through overfilling of the right heart; and you are aware that, although happily not frequent, sudden death occasionally occurs in cases of great pleuritic effusion. An example of the kind happened not long ago under my notice. I had seen, with Dr. Macpherson of Stoke Newington, a gentleman with a large effusion in the right chest. The effusion was very extensive. A little of it was drawn off, and he was cautioned not to leave his bed. He, however, disobeyed orders and rose to go to the night stool, and he suddenly died through syncope when thus out of bed. This was the result we had feared and warned him of. On the other hand, you will find that in extensive left side effusions the tendency is for the right lung to become crepitant through œdema caused by a retention of blood under high pressure in the pulmonary vessels on account of the difficulty of its entry into the left auricle, this congestion of the lung being, however, checked to some extent by the pressure at the same time exerted on the pulmonary artery.

All the considerations I have set before you sum up to show how desirable—nay, how necessary—it is that when liquid accumulates in either cavity of the chest so as to exercise great pressure it should forthwith be drawn off, because we can so plainly trace the action of causes which must tend to seriously interfere with the heart, and there is a certain proportion of the population in whom comparatively small degrees of interference with the heart will lead to sudden and final stoppage of its beating. For there are people who in their ordinary health carry thus within themselves a considerable fraction of the whole sum of causes of sudden death. These people die suddenly under chloroform, or otherwise under degrees of disturbance of the heart which would produce no serious result in average subjects. Now, we may, if you think there is any good in this, say that such people suffer under cardiac inadequacy, or instability of cardiac adequacy; but I have no time to-day for so inexhaustible a topic.

CASE OF

LETHARGIC STUPOR, OR "TRANCE,"

EXTENDING CONTINUOUSLY OVER MORE THAN TWENTY-THREE WEEKS, DURING WHICH LIFE WAS PRESERVED MAINLY BY FEEDING WITH THE STOMACH-TUBE.

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(*Concluded from p. 6.*)

M. CHARCOT, through Dr. Richet, has kindly directed my attention to a case recorded by M. Bourneville in the second part of the "Clinique Photographique de la Salpêtrière" (Obs. 11), which, as it probably represents the extreme limit of M. Charcot's vast experience as regards the duration of the sleep in such cases, may be here briefly referred to. The patient was a hystero-epileptic of the most pronounced character from the age of eighteen, who had at different times for many years suffered from abdominal pains, paraplegia, contracture with deformity of the feet, and ultimately relative atrophy of the left limb with varus, anæsthesia of the general surface on both sides and of the mucous membranes, with ovarian hyperæsthesia. She had been under observation in the Salpêtrière Hospital at various times since 1862, when she

was twenty-seven years of age. She was first seen by M. Bourneville in 1866, and regularly from 1870 onwards. On April 7th, 1875, she became somnolent, and continued so, with several momentary awakenings, till the 27th of the same month, when a violent hysterical paroxysm of delirious laughter and weeping set in, followed by a condition, lasting till June 7th, in which cataleptic rigidity and somnolence alternated with fits of hysteric laughter, cries, and weeping. The awakening was sudden, and she professed to have no recollection of what had passed during her sleep of about two months. During the whole of this time she was fed with the spoon, "swallowing automatically, with noise, and without appearing to awake. When she had taken enough of nourishment she clenched her teeth." A similar attack occurred in 1876, lasting from March 25th to April 9th, beginning and ending suddenly like the other.

In the commentary on this remarkable case, M. Bourneville gives a summary of M. Briquet's still more extended experience as bearing on the subject. "Among 430 hysterics there were three in whom the attacks consisted of a true sleep, five of comatose seizures, and eight of real lethargy.[1] The facts are for the most part not very different from those of the case just referred to. Rigidity, often cataleptic, alternates with relaxation of the limbs; automatic movements are frequent, "the patients seem to struggle, to make efforts to remove imaginary beings or objects; they utter muffled cries, or call for assistance with a loud voice; their physiognomy expresses terror. When they afterwards remember their dreams they affirm that they have had both agreeable dreams and nightmares."[2]

I cannot here afford to follow M. Bourneville in his most interesting historical discussion (p. 141 *et seq.*) as to the somewhat lurid light reflected by these cases of aggravated hysteria, with their peculiar moral temperament, and their *illusions du sommeil*, upon the deplorable narratives transmitted to us from the Middle Ages as to the witches' sabbath, and the long list of cruelties inflicted in the name of law and of religion on those who may have been entirely innocent, or who at most were the victims of disease. Enough has been here set down to show in what points the case of Mrs. McI—— resembled these cases of hysteric catalepsy, and in what respects (especially as regards the antecedents) it differed. I will only add that both in the depth of the slumber, and in its duration, the case recorded in THE LANCET greatly surpasses, so far as my reading has gone hitherto, any recent narrative in which anything like scientific investigation is brought to bear on the facts. Not so, however, in the instance referred to incidentally by M. Bourneville in a footnote (p. 136), of Derk Klaasz, a peasant of Wolkwigk, who, on the faith both of popular engravings and verses preserved in the collection of Dr. van Kasthoven, of Leyden, is alleged to have fallen asleep on June 29th, 1706, awakening on January 11th, 1707, only to fall asleep again till the 15th of March in the same year. Perhaps the motto, "Omnibus haud dormit," on one or more of these caricatures, may be reasonably interpreted as casting a doubt on the genuineness of this instance!

As regards the treatment in the case of Mrs. McI——, I am glad to assign all due credit to Dr. Graham of Isle Ornsay for having initiated, under less easy and favourable circumstances than in the Western Infirmary, what was steadily pursued there to the moment of the spontaneous awakening, the system of artificial feeding by the stomach-tube. That such a treatment was indispensable I infer not only from the fact that in his hands the spoon method of forced feeding had been tried and found wanting, but from my own personal observation, and from my knowledge for many years past of individual, though rare, instances in which such patients have been literally starved to death. One of these cases, which impressed me much at the time of its publication,[3] was that of a lady about thirty years of age who, after about a year or more of disordered health with evident symptoms of mental aberration, refused food, declined to speak (apparently voluntarily), and soon afterwards fell into a state of cataleptic insensibility, with all the usual phenomena, the only marked exception to the apparent anæsthesia and unconsciousness being the resistance to feeding, which always provoked manifestations that it is hard to reconcile with the theory that sensation and volition were completely in abeyance. The details are extremely interesting, but too long for quotation here, and I will only say of them that various incidental facts recorded—e.g., her making "no voluntary movements beyond those necessary at her toilet, except when the nurse once asked her to address a letter for her, which she did" (p. 480)—convey to my mind very distinctly the impression that the lethargic condition in this case must have been, either throughout, or at all events at intervals, far less deep than in the case of Mrs. McI——. It was deep enough, however, to cause these spontaneous volitions, as well as the extreme and persistent opposition to the administration of food by the mouth, to be justly regarded by Dr. Coldstream as "an anomaly," perhaps sufficiently indicated in the following short paragraph:—

"The surface of the cornea, the deeper parts of the nose and of the auditory canal, were touched more or less rudely without any proof of feeling being elicited. . . . Flies were seen to run over the lips, cheeks, and eyelids, and pins were thrust through the skin of the limbs and soles of the feet without any shrinking on the part of the patient; and yet, whensoever, and by whomsoever, a spoon was conveyed to, or made to approach the mouth, the muscles of the jaws and mouth contracted strongly, and resistance to the threatened intrusion of food was maintained to the end" (p. 484).

It is much to be regretted that in this case forcible feeding by the stomach-tube was not insisted on from the moment that it became clear that spoon-feeding was inefficient, for the death of this patient took place six months after the first cataleptic seizure from sheer gradual inanition; and that it was mainly owing to defective alimentation hardly admits of doubt. At p. 486 it is recorded that "there was no indication of derangement of any of the chylopoietic viscera. The emaciation, which ultimately became extreme, commenced immediately after the patient began to decline nourishment, before the attendants had learned how to administer it in spite of opposition. The atrophy then begun could not be corrected by increased quantities of food given subsequently."

Knowing the fatal issue of this and other cases on record, and not being altogether confident that such an issue could be permanently and effectually averted even by the much more efficient system adopted in the case of Mrs. McI——, I was anxiously considering, during the last stages of the somnolence, whether the gradual and by no means extreme emaciation, if still persisting, might not render it advisable to transfer the patient to an asylum, so as to secure for her the benefits of a specially disciplined nursing by attendants accustomed to deal with cases of lethargic stupor among the melancholic and demented insane. Had I been so far privileged at this time as to have read the admirably comprehensive chapter in Dr. Clouston's newly published work on mental diseases,[4] which deals with "states of mental stupor," I believe that my desire to hand this patient over to the care of Dr. Yellowlees at the Glasgow Royal Asylum would have been considerably reinforced. Dr. Yellowlees himself was disposed to entertain favourably this proposal,[5] and gave me by letter, after seeing the patient, some valuable suggestions, which were adopted as far as seemed practicable under the circumstances. But the sufficiently numerous inducements to pronounce Mrs. McI——, for practical purposes, a "person of unsound mind, and fit to be detained under care and treatment," did not appear to me to remove the objections which might have been raised, on purely legal and technical grounds, to such a declaration. Difficulties, too, might have occurred with the

[1] The description of these latter cases at p. 422 of M. Briquet's well-known work leaves the impression that some of them had more resemblance to the case of Mrs. McI—— than those which he defines as simple sleep. None of the attacks, however, extended beyond eight days, though in several cases there was more than one such attack. In all of the cases spontaneous recovery took place, and it was often sudden. M. Briquet remarks that not a single case of preternatural sleep is recorded among the 250 observations analysed by M. Landouzy, and he therefore concludes that notwithstanding what has been written about it, such attacks are "peu communes" (p. 415).

[2] Bourneville, loc. cit., p. 138.

[3] A Case of Catalepsy, by John Coldstream, M.D., Edinburgh Medical and Surgical Journal for 1834, vol. lxxxi., p. 477.

[4] Clinical Lectures on Mental Diseases, by T. S. Clouston, M.D. &c., 1883. Reference may also be made to a valuable paper on Mental Stupor, by Dr. Hack Tuke, in the Transactions of the International Medical Congress, 1881, p. 634.

[5] On two former occasions Dr. Yellowlees had, at my request, admitted into the asylum patients hysterical rather than technically insane, and in both cases with marked benefit. But in one of these cases—that of a girl under age, the consent of her parents being obtained—I had no difficulties in my own mind, as she was clearly starving herself, consciously, to death. The other was the case referred to in the British Medical Journal, Oct. 30th, 1875, p. 546; and again, Sept. 1st, 1877, and May 4th, 1878, p. 635, in which the details of the case have a deep interest in connexion with the present subject, but are too long and complicated for further reference here.

relatives, and particularly with her husband, who was at a distance, and might easily have been advised against dealing with his wife as insane. An eminent English specialist, whom I incidentally consulted, was adverse, and even thought it legally incompetent, so to certify her. The question seems still open to discussion, and I hope it will receive some attention from those who may read these remarks; but in one, at least, of Dr. Clouston's cases (F. O——, p. 295) the stomach-tube was regularly employed for nearly three years[6] without any loss of weight, and with the result of convincing me that, as respects the details of the alimentation, we had by no means "exhausted the resources of civilization" in Mrs. McI——'s case.

The only other case to which I desire to make allusion at present is one in which I am fortunately in a position to furnish a sequel to an incomplete narrative, not without resemblance to the one lately published in this journal. "A Case of Trance" was the subject of a paragraph in the *British Medical Journal* of May 31st, 1879 (p. 827), from which it appeared that in the London Hospital a woman, twenty-seven years of age, was at the time under the care of Dr. Langdon Down, being of rather small stature and weak mental capacity, and affected for at least two years with organic disease of the heart. About three weeks before the date of the report she had become suddenly somnolent, with most of the peculiarities in her sleep which have been already alluded to. She was fed partly by nutrient enemata, and for some days by a tube passed through the nostrils into the stomach. The resemblance is noted between this case and that of "the famous Welsh fasting girl," then attracting much attention in newspapers and otherwise. There being no further reference to this case in the journal, I wrote to Dr. Langdon Down, who kindly furnished me with the following additional particulars, which will no doubt be read even now with interest: "My patient, who was in a state of trance, recovered somewhat suddenly after about four weeks, and left the hospital. The first indication of returning consciousness was observed when I was reading to my class at her bedside one of the numerous letters that I received entreating me not to have her buried until something which the writers recommended had been done. The paragraph of the medical journal got into some Welsh paper, and then went the round of the provincial press, hence the number of letters I received. This special one was from an old gentleman of eighty-four years, who when he was twenty-four was thought to be dead, and whose friends had assembled to follow him to the grave, when he heard the undertaker say—'Would anyone else like to see the corpse before I screw him down?' The undertaker at the same time moved the head a little, and struck it against the coffin, on which he aroused and sat up. On reading this aloud a visible smile passed over the face of my patient, and she returned to obvious consciousness soon after. She has not come under observation since she left the hospital."

Although this case is probably only one among many, I mention it here because the receipt of the letter just given led me to investigate more particularly the state of the hearing in Mrs. McI——'s case, and also to try the experiment of reading aloud Dr. Down's letter in her presence and that of the class. I had often remarked to bystanders that although the subjects of these apparently unconscious states appeared inaccessible to the ordinary tests of sensibility, it was on record as regards some, even of those regarded as cases of "apparent death," that after recovery they affirmed to have heard everything that passed, although unable to lift hand or foot to save themselves from premature burial. It is quite certain, I think, that no such paradox can be maintained in Mrs. McI——'s case. The reading of Dr. Langdon Down's letter produced just as much and as little effect as a violent and sudden shout into her ear; neither the one nor the other caused her to stir a muscle at the time, nor was either apparently remembered afterwards.

[6] The quantity, as well as quality, of food given in this case by the stomach-tube was certainly remarkable, and far in excess of anything attempted in Mrs. McI——'s case. The following brief account of the treatment is worth quoting here. "He was fed in the morning with a liquid mess, consisting of a pound of beef done to a liquid form in a large mortar, with potatoes and vegetables similarly pounded down, the whole being made liquid enough to pass readily through a stomach-pump-tube with beef-tea and a quarter of a pound of sugar. His bowels kept regular. He had at various times quinine, strychnine, phosphorus, ergot, cod-liver oil, the hypophosphite of lime, iron, and the continued current (up to twenty cells) of a Hawksley's battery, used once a day for months together, through his brain and spinal cord. No good seemed to be done, yet he was a case about whom we never quite lost hope. His nutrition kept fair and he did not lose weight."—Mental Diseases, p. 297.

ON THE

PHYSIOLOGY OF THE CARBOHYDRATES IN THE ANIMAL SYSTEM.

BY F. W. PAVY, M.D., F.R.S.

(Continued from page 9.)

Grape Sugar enclosed in Stomach and Intestine, and exposed to Warmth.

Experiment.—Fifty cub. centims. of a solution of grape sugar were enclosed in the emptied and cleansed stomach of a freshly killed rabbit. The stomach was laid in a beaker, and exposed for thirty minutes to a temperature of 120° F. (48·8° C.). At the end of this time the contents were collected and submitted to analysis. The cupric-oxide reducing power expressed as glucose stood as follows:—

Before sulphuric acid	... ...	1·738 grm.
After ,, ,,	... ...	2·352 ,,

Brought to a percentage relation, the reducing power before and after boiling with sulphuric acid here stands at 73 to 100. Twenty-five cub. centims. of the same solution of grape sugar were also enclosed in a coil of the intestine, and a similar treatment carried out. The results yielded were:—

Before sulphuric acid	... ...	·570 grm.
After ,, ,,	... ...	1·140 ,,

Here the cupric-oxide reducing power of the product before reconversion into glucose stood in the relation of 50 to 100 after reconversion.

Experiment—Twenty cub. centims. of a solution of grape sugar containing ·185 grm. of glucose were enclosed in a thoroughly cleansed rabbit's stomach, and exposed for two hours to 120° F. (48·8° C.). The analysis then yielded a cupric-oxide reducing power expressed as glucose equivalent to:—

Before sulphuric acid	... ...	·102 grm.
After ,, ,,	... ...	·184 ,,

These figures stand in the relation of 55 to 100.

The same quantity of the grape sugar solution was introduced into a coil of intestine and similarly dealt with. A duplicate observation was here made. The results yielded were as follows:—

OBS. 1.	Before sulphuric acid	...	·108 grm.
	After ,, ,,	...	·184 ,,
	Relation 58 to 100.		
OBS. 2.	Before sulphuric acid	...	·106 ,,
	After ,, ,,	...	·180 ,,
	Relation 58 to 100.		

Looking at these results we see that the ·185 grm. of glucose started with was transformed into products possessing a cupric-oxide reducing power equivalent to ·102, ·108, and ·106 grm. of glucose, and that after subjection to the reconverting influence of boiling with sulphuric acid, the amount of glucose found very closely corresponded with that actually employed.

Experiment.—Twenty cub. centims. of a solution of grape sugar containing ·192 grm. of glucose were enclosed in a cleansed rabbit's stomach, and exposed for one hour to a temperature of 120° F. (48·8° C.). An analysis of the contents at the end of this time gave the the following results:—

Before sulphuric acid	... ...	·124 grm.
After ,, ,,	... ...	·184 ,,
Relation 67 to 100.		

The same proceeding was carried out with another stomach, with the difference that the exposure to 120° F. was for two hours instead of one.

Before sulphuric acid	... ...	·112 grm.
After ,, ,,	... ...	·206 ,,
Relation 54 to 100.		

A similar observation was conducted upon the intestine with the employment of the same quantity of the grape sugar solution; a duplicate was made in the case of the exposure for one hour to the temperature of 120° F.

The following are the results obtained:—

Exposure for one hour to a Temperature of 120° F.

OBS. 1. Before sulphuric acid ... ·106 grm.
After ,, ,, ... ·184 ,,
Relation 57 to 100.

OBS. 2. Before sulphuric acid ... ·108 grm.
After ,, ,, ... ·192 ,,
Relation 56 to 100.

Exposure for two hours to a Temperature of 120° F.

Before sulphuric acid ... ... ·110 grm.
After ,, ... ·184 ,,
Relation 59 to 100.

Grape Sugar enclosed in Stomach and Intestine, and these immersed in Water for Diffusion to occur.

Experiment.—A solution of grape sugar was enclosed in the stomach of a freshly killed rabbit which had been emptied of its contents, and thoroughly rinsed through with water. The stomach was then immersed in about 100 cub. centims. of water contained in a beaker, and the beaker exposed for thirty minutes to 120° F. (48·8° C.). At the end of this time a portion of the water was taken from the beaker for analysis, and the beaker and its contents were afterwards placed on one side and exposed to the ordinary temperature for twenty-four hours. The water in the beaker and the contents of the stomach were now respectively subjected to analysis. The two portions of water removed from the beaker only required to be measured, divided into two equal parts, and titrated before and after boiling with sulphuric acid, used, as is always the case, in the proportion to give a 2 per cent. solution. The contents of the stomach were treated with crystals of sulphate of soda, boiled, filtered, and washed, and the filtrate brought to a known bulk and divided into two equal parts.

One part was titrated at once, and the other after the process of boiling with sulphuric acid, conducted in the usual manner. Subjoined are the results yielded :—

Water from Beaker at the end of thirty minutes.

Before sulphuric acid ... ... ·012 grm.
After ,, ,, ... ·012 ,,

Water from Beaker at the end of twenty-four hours.

Before sulphuric acid ... ... ·086 grm
After ,, ,, ... ·160 ,,

Contents of Stomach at the end of twenty-four hours.

Before sulphuric acid ... ... ·526 grm.
After ,, ,, ... ·768 ,,

These results show that at the end of half an hour only a very small portion of the contents of the stomach had reached the surrounding water, and that this first diffusate consisted of unchanged glucose. At the end of twenty-four hours the water contained a product with a cupric-oxide reducing power of 53 as compared with 100 for glucose, and the contents of the stomach 67 against 100.

The intestine was used in a similar manner. Here a duplicate observation was made, and in each case a length of intestine of about twenty inches was employed. The results yielded were as follows :—

OBSERVATION 1.

Water from Beaker at the end of thirty minutes.

Before sulphuric acid ... ... ·016 grm.
After ,, ,, ... ·016 ,,

Water from Beaker at the end of twenty-four hours.

Before sulphuric acid ... ... ·208 grm.
After ,, ,, ... ·384 ,,

Contents of Intestine at the end of twenty-four hours.

Before sulphuric acid ... ... ·415 grm.
After ,, ,, ... ·768 ,,

OBSERVATION 2.

Water from Beaker at the end of thirty minutes.

Before sulphuric acid ... ... ·020 grm.
After ,, ,, ... ·020 ,,

Water from Beaker at the end of twenty-four hours.

Before sulphuric acid ... ... ·250 grm.
After ,, ,, ... ·588 ,,

Contents of Intestine at the end of twenty-four hours.

Before sulphuric acid ... ... ·454 grm.
After ,, ,, ... ·768 ,,

In both these observations, as in the case of the stomach, the water at the end of half an hour contained unchanged glucose in small amount. The water at the end of twenty-four hours contained a product with the reducing power, in the one case of 54 and in the other 42 to 100 for glucose. With the contents of the intestine the glucose had been transformed so as to give a cupric-oxide reducing power of 54 and 59 instead of 100.

Experiment.—Twenty cub. centims. of a solution of grape sugar were enclosed in a rabbit's stomach as in the previous experiment, and the stomach placed in a beaker containing 100 cub. centims. of water, and exposed to a temperature of 120° F. (48·8° C.). Water was removed from the beaker at the end of one hour for examination, and the beaker and the contents afterwards allowed to remain two hours longer at a temperature of 120° F. (48·8° C.), when the water and contents of the stomach were taken for analysis. The following were the results yielded :—

Water from Beaker at the end of one hour.

Before sulphuric acid ... ... ·008 grm.
After ,, ,, ... ·008 ,,

Water from Beaker at the end of three hours.

Before sulphuric acid ... ... ·010 grm.
After ,, ,, ... ·018 ,,

Contents of the Stomach at the end of three hours.

Before sulphuric acid ... ... ·624 grm.
After ,, ,, ... 1·052 ,,

The figures show glucose in small amount in the water contained in the beaker at the end of one hour, and a product with the reducing power of 55 to 100 for glucose in the water at the end of three hours, and 59 to 100 in the contents of the stomach.

The intestine was employed in a similar way, and the results obtained stood as follows :—

Water from Beaker at the end of one hour.

Before sulphuric acid ... ... ·020 grm.
After ,, ,, ... ·022 ,,

Water from Beaker at the end of three hours.

Before sulphuric acid ... ... ·060 grm.
After ,, ,, ... ·060 ,,

Contents of the Coil of the Intestine at the end of three hours.

Before sulphuric acid ... ... ·554 grm.
After ,, ,, ... 1·052 ,,

It is noticeable that the water in the beaker at the end of three hours contained glucose. I hardly know how this disparity is to be explained, and must simply give the figures just as they were yielded. Some error may have occurred. The product in the intestine at the end of three hours possessed a reducing power of 52 to 100 for glucose.

Experiment.—Twenty cub. centims. of a solution of grape sugar were enclosed in the cleansed stomach of a freshly killed rabbit, and the stomach placed in a beaker containing about 100 cub. centims. of water, and exposed for two hours to a temperature of 120° F. (48·8° C.). On submitting the water in the beaker and the contents of the stomach to analysis at the end of this time, the following results were obtained :—

Water from Beaker at the end of two hours.

Before sulphuric acid ... ... ·044 grm.
After ,, ,, ... ·078 ,,
Relation before and after sulphuric acid 56 to 100.

Contents of the Stomach at the end of two hours.

Before sulphuric acid ... ... ·104 grm.
After ,, ,, ... ·204 ,,
Relation 50 to 100.

The intestine similarly treated gave the following results :—

Water from Beaker at the end of two hours.

Before sulphuric acid ... ... ·040 grm.
After ,, ,, ... ·052 ,,

Contents of the Intestine at the end of two hours.

Before sulphuric acid ... ... ·104 grm.
After ,, ,, ... ·216 ,,

Here the water in the beaker contained a product with a reducing power of 76 in relation to 100 as the reducing power of glucose, whilst the intestine contained a body with a reducing power of only 48 to 100.

Experiment.—In a like experiment to the last, with the exception that the exposure to 120° F. (48·8° C.) was for one hour and a half instead of two hours, the subjoined results were obtained:—

Water from Beaker at the end of one hour and a half.

Before sulphuric acid ... ... ·006 grm.
After ,, ,, ... ·006 ,,

Contents of Stomach at the end of one hour and a half.

Before sulphuric acid ... ... ·142 grm.
After ,, ,, ... ·256 ,,
Relation 55 to 100.

Duplicate observations were made with the intestine.

OBSERVATION 1.

Water from Beaker at the end of one hour and a half.

Before sulphuric acid ... ... ·054 grm.
After ,, ,, ... ·082 ,,
Relation 65 to 100.

Contents of Intestine at the end of one hour and a half.

Before sulphuric acid ... ... ·140 grm.
After ,, ,, ... ·270 ,,
Relation 51 to 100.

OBSERVATION 2.

Water from Beaker at the end of one hour and a half.

Before sulphuric acid ... ... ·062 grm.
After ,, ,, ... ·084 ,,
Relation 73 to 100.

Contents of Intestine at the end of one hour and a half.

Before sulphuric acid ... ... ·146 grm.
After ,, ,, ... ·270 ,,
Relation 54 to 100.

Experiment.—Two lengths, each of about 20 in., of thoroughly cleansed rabbit's intestine, were charged with 20 cub. centims. of a solution of grape sugar, placed in beakers containing 100 cub. centims. of water, and exposed for one hour to a temperature of 120° F. At the end of this time the usual analysis was performed.

OBSERVATION 1.

Water from Beaker at the end of one hour.

Before sulphuric acid ... ... ·020 grm.
After ,, ,, ... ·034 ,,

Contents of Intestine at the end of one hour.

Before sulphuric acid ... ... ·118 grm.
After ,, ,, ... ·172 ,,

OBSERVATION 2.

Water from Beaker at the end of one hour.

Before sulphuric acid ... ... ·020 grm.
After ,, ,, ... ·035 ,,

Contents of Intestine at the end of one hour.

Before sulphuric acid ... ... ·120 grm.
After ,, ,, ... ·178 ,,

In these duplicate observations the results show that the water from the beaker contained a body with a reducing power in the one case of 58, and in the other of 57, as compared with glucose at 100. The contents of the intestine in each case possessed a reducing power of 68 to 100.

(To be continued.)

AN illuminated address has been presented to Dr. H. G. Myles, recently attached to the Hospital for Incurables, Dublin, on his appointment as resident medical officer to Abbeyshrule Dispensary.

A CASE OF SO-CALLED SCURVY RICKETS.

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THE following is a typical example of a rare class of cases, which was brought prominently before the notice of the profession in a communication to the Clinical Society last year by Dr. Barlow. The condition has, however, been described by numerous observers both at home and abroad—e.g., by Mr. Thomas Smith,[1] by Dr. Cheadle, Mr. Waren Tay, Mr. Parker, and Mr. Page, and by many German authorities under the name of "acute rickets."

B. J. K——, a girl, aged eleven months, came under my care at the North-Eastern Hospital for Children, on Aug. 14th, 1883, when she presented the following symptoms. She was very pale and anæmic, and lay helplessly upon her mother's lap, crying at any movement of the lower extremities. She had an exceedingly rickety appearance in general, exaggerated beading of the ribs, much thickening of the lower ends of the bones of the forearm, very open fontanelles, and a large abdomen. But when the legs were uncovered it was seen that their condition was not the ordinary one found in rickets. At first sight it was clear that there was considerable irregular lumpy swelling, and that they were much and unsymmetrically distorted; and on feeling them it was found that the deformity was produced partly by this swelling, but chiefly by a separation of both the upper and lower epiphyses of both bones of both legs, and of a similar separation of the lower epiphyses of both femora. It was thus possible to put the lower limbs into almost any position of distortion; but, as was mentioned above, such movements evidently caused the child a great deal of pain. An extensive, hard, but elastic swelling surrounded the lower half of the shaft of the right femur, causing what at first sight suggested a marked antero-posterior curve. A similar, but smaller, swelling was present on the left side; and the same sort of thing was found both at the upper and lower ends of the leg bones. At the lower part of the left leg there was a little purplish discolouration of the skin, as if from bruising, and a little œdema. Most of the swollen parts gave the idea of possibly containing a small amount of fluid between them; but it could not be said that an actual sense of fluctuation was anywhere obtainable. There was no enlargement of liver or spleen, no swelling or sponginess of gums, no purpuric discolouration anywhere; and, in fact, no other symptom to be noticed except a little intertrigo about the labia. The child was at once put to bed, with its legs securely fixed in good position between sand-bags, and its pain was thus immediately relieved. The following were ordered:—Half a drachm of syrup of phosphate of iron, water to one drachm; and half a drachm of cod-liver oil, ten minims of glycerine, water to one drachm, three times a day. It was given plenty of cow's milk, suitably diluted, and the juice of one lemon sweetened with sugar every twenty-four hours. This was the only treatment adopted. Whilst taking it, but, as very rapid improvement occurred. The child put on flesh and became quite cheerful, the swellings subsided, and by August 29th—i.e., a fortnight after admission, all the separated epiphyses had become firmly united to their respective shafts, and the legs could be manipulated without causing any pain or inconvenience. When last seen, Dec. 17th, no relapse had taken place; the child was fat and strong, having a good colour and showing only the common appearances of rickets. At one period, about the end of October, the intertrigo returned, and there was a slight irritable pustular rash on some other parts of the body, which there was no reason to consider syphilitic, and which has now disappeared. The mother had been married twice; she had had no children by her first husband, but three by the second; of these the first died at birth, the second is now three yeers old, and the third is the subject of this paper. It had been brought up by hand from the first, having been given condensed milk for six weeks, then cow's milk, and when three months old sago, and when six months old nursery biscuits twice a day. Up till this age there had been no vomiting, but it had had diarrhœa from

[1] Hæmorrhagic Periostitis, Pathological Transactions, vol. xxvii.

the commencement of its illness, which began nine weeks before it was brought to the hospital, and at this time a little blood had been passed from the bowel, and the motions before the onset of the diarrhœa had been noticed to be offensive. This diarrhœa lasted a fortnight, and was followed by pains which were supposed to be rheumatic. The pains were first observed in the knees and hips, then in the ankles and feet, and also in the shoulders, though the arms appeared quite free from the disorder when she came under my notice. During part of the illness she could raise her head but not her back, as has been noticed in other cases by different observers. Three weeks before she came to the hospital she had subconjunctival and orbital hæmorrhage. The mother, of her own accord, said that the swellings sometimes diminished and then suddenly increased.

It is thus seen that while the child was markedly rickety there was no sign of syphilitic taint; and though the diet had certainly not been the best imaginable, still it was hardly one that would be expected to give rise to scurvy. On the other hand, it is very remarkable that the improvement began immediately on placing the patient in good hygienic conditions, and giving it proper food, with the addition of cod-liver oil and lemon juice. It would be very interesting in another case to observe which, if any, of these therapeutic measures is the essential one in effecting a cure, or whether, indeed, as has been suggested by some of the reported cases, the disease runs its course in a certain number of weeks and disappears, even if no special line of treatment be adopted. There can be no doubt that the condition here was one which has been shown to exist post mortem in some instances, and has been demonstrated during life in a case under the care of Mr. Page, in which an incision was made into the swelling—viz., that an effusion of blood had taken place beneath the periosteum, and between the epiphyses and shafts of the bones. In some cases certainly, and possibly in this child, the shaft has not only been completely separated from both the upper and lower epiphyses, but also from the whole of the periosteum. We must suppose that the main nutrient vessel, at least, remains uninjured; but even so, it is not a little remarkable that the diaphysis should be able to retain its vitality. The speed with which the whole bone became firmly compacted again is also somewhat startling; but this finds a parallel in the rapid cure of a rather similar condition, which is found in the severer cases of epiphysitis of syphilitic children under the influence of mercury. I have seen complete union of a separated epiphysis occur in the course of a week during the administration of a grain of grey powder three times a day.

I do not propose to enter into a discussion of the reasons which have been adduced to prove the scorbutic nature of this disease, as these have been fully argued by others; but no apology seems to be needed for simply putting the case on record, because the condition has been comparatively recently described in our country, and as it is a rare one, surgeons meeting with examples of it may well be in difficulty in arriving at a correct diagnosis. But independently of the question of forming a diagnosis is the important one of treatment. The temptation is so strong to resort to something heroic, either in the way of the administration of mercury or the incision of the fluctuating swellings, both of which must be useless and probably hurtful, that it is instructive to see how rapidly such a serious state of things may yield to the simple administration of suitable diet and a good supply of fresh air.

I append a somewhat suggestive quotation from Lind's "Classical Treatise on the Scurvy," second edition, p. 259:—

"15: In some we heard a small grating of the bones. Upon opening these bodies the epiphyses were found entirely separated from the bones, which by rubbing against each other occasioned this noise. In some we perceived a small, low noise when they breathed. In those the cartilages of the sternum were found separated from the bony parts of the ribs.—16: All those in whose breast any matter or serum was found had their ribs separated from the cartilages, and the bony part of the rib next the sternum carious for four fingers' breadth.—19: All the young persons under eighteen had in some degree the epiphyses separated from the body of the bone, this water having penetrated into the very substance of it." The "water" is previously referred to as a "greenish liquor filling the joint," and does not therefore appear to have been blood.

Wimpole-street, W.

CASE OF

SUCCESSFUL PARTIAL AMPUTATION OF BOTH FEET FOR SENILE GANGRENE.

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IN the following case the second operation was performed rather more than a year subsequent to the first.

The subject, John S——, is a tall, spare man, living on parish pay in Bedminster. His father died at the age of ninety, and he thinks his mother was still older. His occupation was for many years that of a fixed engine-driver and fireman. While on duty at a fire in the very severe winter of 1880–81, he says his feet were "frost-bitten," but that he "got them right again by rubbing them with snow-water,"&c. However, since that time he has constantly had cold feet, "even while sitting before a good fire with warm socks on," and suffered from cramps, tingling, and itching in both feet. He was always temperate. For some time before admission into the Bristol General Hospital, May 20th, 1882, he had not been able to obtain good food, and had occasionally been even almost in want. About April 20th, 1882, he noticed "the fourth and fifth toes of the right foot getting dusky and black, then a blister formed, which burst, leaving a wound," and these toes had been getting worse up to the time of his admission; during the whole of that time there had been a severe burning pain in the affected limb.

On admission, although he looked pretty healthy, there was a restless, anxious expression about his face; he expressed very little hope, and was exceeding distressed by the condition of his foot. The fourth and fifth toes of the right foot were gangrenous, black, and slightly shrivelled. There was also an ulcer on the outer side of the third toe. This toe had, however, retained its vitality and the ulcer seemed to have been produced by the contact with the dead tissue upon which it pressed. There were œdema and inflammatory redness extending more than halfway up the dorsum of the foot. The anterior and posterior tibial arteries appeared somewhat hard and tortuous, but were fairly compressible and could be felt to pulsate. Pulse 76, weak; temperature 96°. The patient was put on the most generous diet he could digest, consisting of the ordinary diet of the hospital, with from time to time extra milk, beef-tea, and eggs, with four ounces of brandy daily. He was kept in bed and the foot wrapped in cotton-wool. Being in great pain he was given fifteen grains of bromide of potassium and fifteen grains of hydrate of chloral.—May 21st: Although he slept well the pain returned very severely in the morning. Temperature 98°.—24th: The patient, being very restless and anxious, the pain continuing to be very severe, and the gangrene slowly spreading without any sign of a "line of demarcation," the two gangrenous toes, with the heads of their respective metatarsal bones, were removed, each by a separate ordinary oval incision, leaving some skin between them. The heads of the metatarsal bones were cut off by bone forceps. These oval incisions passed through the inflamed red and œdematous integuments of the dorsum of the foot. The surface of the ulcer on the third toe was scraped with a Volkener's spoon, well swabbed with a 40-grain to the ounce solution of chloride of zinc. This operation, as well as the second one, was performed under the carbolic spray after the foot had been carefully washed in a 1 in 20 solution of carbolic acid; the instruments and hands of all who touched the foot were also thoroughly purified, and, in fact, every precaution was taken to destroy any putrefactive germs which might have found an entrance into the wound, which was afterwards dressed with the usual protective and carbolic gauze. Chloroform was the anæsthetic used. After the operation, there being considerable burning pain, he was given half a drachm of the liquor morphiæ, B.P. Pulse 86; morning temperature 97·4°, evening 98·2°.—25th: Slept well; not so much pain; felt altogether better; wound, which was dressed under the spray, looked well. Pulse 84; morning temperature 97·8°, evening 99·4°, the highest point reached after this operation.—26th: Wound dressed; inflammatory redness and œdema less. Pulse 82; morning temperature 97·8°, evening 98·6°.—28th: Wound dressed; looked very

well; inflammatory redness had entirely disappeared; the edges of the wound, which were filled with clot, were white; the discharge consisted merely of serous fluid, which oozed from the clot. He slept well without a draught; felt so much better and so much more cheerful that he said "he felt as if a new life had been given him."—30th: Ulcer on third toe completely healed.—June 2nd: Small toe almost healed, and clot in next nearly organised.—4th: Little toe well except superficial sore; next toe nearly healed. Got up.—6th: There being only a superficial sore, boracic dressing substituted for the carbolic.—10th: Wound quite healed.—23rd: Discharged well, except that for a few days he had complained of a slight pain in the other foot.

The patient was readmitted on April 25th, 1883, eleven months after the operation. The right foot remained quite sound; but of the left foot the middle toe was quite black and dead; there were black patches on the adjoining ones, and all the toes were more or less purplish-black, with inflammation and œdema extending to the ankle-joint. He was suffering a great deal of burning pain, and appeared very despondent. He was ordered a nourishing diet, with three ounces of brandy daily. To be kept in bed, and the foot wrapped in cotton-wool.—May 12th: The black patch on the middle toe considerably larger, and the foot altogether worse. He seemed greatly distressed and hopeless, and would not hear of any operation. Quinine and iron mixture prescribed; but as he continued to refuse any operation he went out of the hospital on May 30th, rather more than a month from his admission, but returned in about three weeks and was again admitted.—June 18th: His foot having continued to get worse, and he having made up his mind to submit to any necessary operation, he was ordered the same diet, with six ounces of brandy daily instead of four.—19th: Pulse 84; morning temperature 97·6°, evening 98·8°. Foot extremely painful, swollen, and œdematous, with increased blackness of toes. Anxiety and distress increased.—20th: The distal half of the foot was amputated, the metatarsal, cuneiform, and cuboid bones were removed. The flaps were superior and inferior, being both of equal length and composed of extremely œdematous and inflamed tissues; in addition to the dressings used last time a drainage-tube was inserted on this occasion. Thirty minims of liquor morphiæ were prescribed. Pulse 90; morning temperature 98·4°, evening 99·8°.—21st: Slept well, and felt so much better both generally and in the foot than before the operation that he again used the expression that he "felt as if a new life had been given him." Wound dressed, which looked very well except that there were one or two rather dark specks at the edge of the incision, some of the stitches which appeared rather tense were removed. Morning temperature 99·8°, in the evening it reached 100°, being the highest point attained; from this period it steadily declined to rather below normal, which seemed to be his usual temperature. Pulse 84, which the day before reached 90, the highest recorded during his stay in the hospital.—22nd: Wound dressed, which seemed to be healed across except the skin, and this was dark at the stitches, removed all remaining except one at each end.—24th: Wound dressed, edges continued dark, but less so than on the 22nd; remaining two stitches removed. Taking food well.—26th: Wound dressed, very little discharge; drainage-tube shortened. Some pain in abdomen. Pulse 84; morning temperature 98°, evening 98·6°.—29th: Wound dressed. There was a small superficial slough along part of the edge of the wound.—July 4th: Wound skinned over, looking healthy, but outer side of heel dark and painful. Temperature 98·4°.—11th: Left off carbolic dressing and substituted boracic. Wound looking very well. On the outer side of heel there is a sloughy sore, the central slough being surrounded by healing edges.—15th: Wound looking healthy; sore under heel healing. From this time he went on improving slowly, until, the wound having entirely healed, he was discharged on August 12th.—On Nov. 14th, nearly five months after the second operation, he was shown at a meeting of the Bristol Medico-Chirurgical Society. The right foot was perfectly sound; the left quite healed, but, as far as the ankle-joint, slightly swollen, and rather tender when he steps upon it.

I consider this case important, because the treatment of senile gangrene, as laid down by authorities, is extremely unsatisfactory. For almost all writers, while acknowledging that if left alone it will steadily go on from bad to worse, generally ending fatally in about a month or eight weeks, but sometimes not for twelve months, say that amputation will probably be useless, especially before the line of demarcation is well established. Some few surgeons do advocate amputation, but only at a great distance from the gangrene, a successful case of which we had at the hospital a short time ago under the care of Mr. Dobson.[1] Mr. Watson Cheyne, in his book, which I have read since my second operation, advocates theoretically early amputation, but I believe this is the first instance in which it has been successfully performed. The perfect success that resulted from the first operation I think remarkable, especially as the incisions were made through inflamed and œdematous tissues; the bones were subjected to the violence of the bone forceps; and, above all, that the ulcer on the third toe produced by the irritation of contact with the gangrenous fourth toe healed so rapidly. To look at the right foot now one would hardly suppose that it was so near to destruction by senile gangrene some eighteen months ago. The other, that on the left foot, I take to have been still more remarkable, although the mutilation of the foot was greater and the stump not quite so healthy-looking as the other foot, because my incisions were made through such extremely unfavourable tissues, for they were discoloured, swollen, and very œdematous, being full of watery-looking fluid, which exuded freely during the operation.

Now, are we to look upon these results as being entirely due to good fortune, or can we assign any probable reason, and is there anything to be learned from them? I must confess that I think they go to confirm the opinion that the continued spread of senile gangrene is caused by the local irritation of the contact of putrefying dead matter with the living but slightly resisting tissues—i.e., tissues whose vital powers of destroying low forms of life are very small, and that if one can remove all possibility of putrefaction, even if one has to resort to the violence of an amputation, and that through very unpromising tissues, one may save the patient. In the second case this was shown even more than the first, for here the amputation was made through parts of such extremely low vitality that sloughs, small certainly, formed at several of the stitch points, as well as along the extreme edge of the wound, and again the integuments of the heel sloughed from the weight of the part of the foot, although great care by padding with cotton-wool was taken to prevent it. How is it that this sloughing did not spread? What was the difference between the sloughs and the gangrenous toes? The gangrene of the toes would have gone on spreading until death ensued, while the sloughs remained quiet, did not spread, but were either absorbed or came away in the dressings, leaving a healing surface beneath them. The only difference I can recognise with regard to the tendency to spread, is that the toes were in a state of putrescence at the points of contact with the living tissues, while the other sloughs were entirely free from any putrefaction; and this being the case, I should feel inclined to amputate early through moderately healthy tissues, and should expect to prolong the life of my patient, and this view is supported by the better result in the case of the right foot. In case of recurrence of the gangrene I should again amputate.

Bristol.

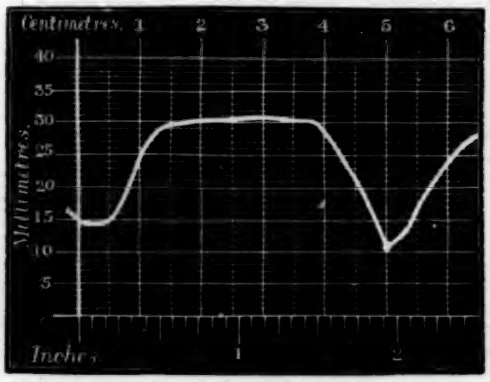
A CHART FOR RECORDING URETHRAL MEASUREMENTS.

BY GEORGE HERSCHELL, M.D. LOND.

THE annexed woodcut represents a portion of a chart which I have had engraved for my own use, and which I have found of great assistance in keeping records of my stricture cases. It consists essentially of a series of vertical and horizontal lines crossing one another at right angles. Taking the extreme left hand vertical line to represent the meatus urinarius, the other vertical lines will denote distance from the meatus and are numbered in centimetres. The horizontal lines denote the *circumference* of the urethra in millimetres. There is an obvious advantage in having the *circumference* and not the *diameter* represented, from the fact that the circumference in milli-

[1] Since this was written, Mr. Jonathan Hutchinson has read a paper before the Royal Medical and Chirurgical Society, advocating the high amputation.

metres of all instruments according to the metric, or the French scale is practically identical with the number marked upon the handle of the instrument—that is to say, that for all practical purposes a urethra which will just admit a No. 30 French scale, may be taken to have a circumference of thirty millimetres. For this reason, and also from the fact that while the successive instruments of the English scale are separated from each other by intervals of varied length, the sizes of the French scale proceed regularly by a constant increment of one millimetre in circumference, the former has been virtually abandoned in favour of the latter by all surgeons of the modern school who have much to do with stricture cases. Such being the case, it follows that any plane perpendicular to the axis of the urethra may be represented by the point of intersection of a vertical and a horizontal line upon the chart, both as regards the calibre of the urethra in that plane and its distance from the meatus respectively. By measuring a sufficient number of such consecutive planes in the urethra with the exploring bulb, or if the meatus is contracted, with the urethrometer, marking these points upon the chart, and joining them, a diagrammatic representation of the urethra will be obtained, which obviously conveys at a



glance a more distinct idea of that canal in its totality than any written description could possibly do. The normal calibre of the urethra should be ascertained either by the ratio that Otis has demonstrated to exist between the circumference of the flaccid penis and that of the urethra, or preferably by means of the urethrometer, and filled in upon the chart between the points of contraction. As an example the woodcut represents a urethra of a normal calibre of thirty millimetres with a meatus contracted to just admit a No. 15 bulb, this contraction extending to a depth of half a centimetre. Another stricture defined by a No. 10 bulb is present at five centimetres from the orifice, the urethra between these points expanding to its ascertained normal calibre of thirty millimetres.

There are two points in urethral pathology which are yet unsettled—namely, the average normal calibre of a healthy urethra, and the locality of the greatest frequency of stricture. I hope that these charts, by affording a ready means for the accurate recording and comparison of urethral measurements, may remove some of the obstacles to the accumulation of the data necessary to solve these important problems.

Moorgate-street, E.C.

COMPLETE ABSENCE OF JEJUNUM, ILEUM, AND THE GREATER PART OF THE COLON.

By WILLIAM THOMAS, F.R.C.S.,
PROFESSOR OF ANATOMY, QUEEN'S COLLEGE; SURGEON TO THE CHILDREN'S HOSPITAL, BIRMINGHAM.

F. D——, aged two days, was sent to me by Dr. Richards on October 20th. The child had been born prematurely (seven months), and on examination no trace of anus was visible in the normal situation. The labia were comparatively large; on separation no urethral orifice was visible, but a probe passed in the direction of the urethra for about two inches could readily be felt through the abdominal wall above the pubes, and was followed by the escape of a few drops of clear fluid. A second could be passed along the posterior wall of the vagina in the direction of the rectum for more than three inches; this excited the expulsion of about a teaspoonful of pale, yellowish, gelatinous mucus. The abdomen was not distended, and seemed smaller than normal, especially in the lower part. The child had taken the breast, but had been sick continually, not retaining food many minutes. It was decided that some congenital malformation of the bowel existed and that no operative proceeding could be undertaken with a reasonable prospect of success.

Oct. 21st.—Worse; cannot take the breast, but swallows a little milk and water. Has thrown up a quantity of stuff said to resemble "a baby's pale motion." The skin is much yellower than yesterday, and the child altogether weaker.—22nd: The child gradually got weaker and died this morning. I was not immediately informed of the child's death, in consequence of which there was delay in obtaining permission to make a post-mortem. The examination had to be made within an hour of the time appointed for the funeral, and was not so complete as desirable, only the abdominal viscera being examined.

The following notes were taken by Dr. Powell, resident medical officer at the Children's Hospital, who kindly assisted me:—Rigor mortis almost absent; skin generally of a brownish-yellow, with a considerable amount of post-mortem lividity. On opening the abdomen, and prolonging the incision downwards, it was found there was no union of the pubic bones, an interval existing between them large enough to admit a finger. There was no great distension of the abdomen; the great omentum was adherent in various places to the parts beneath. The stomach was of normal size, moderately distended, and connected with the duodenum by a constricted pylorus half an inch in length and rather less in diameter. On raising the great omentum the duodenum was found to occupy the greater part of the abdominal cavity. It was about an inch and a half in diameter in the distended state, and curved round the pancreas, to terminate on the left side of the spine by a blind extremity. There was no trace of any other part of the small intestine, nor of the cæcum, ascending or transverse colon. The intestine was recommenced by a blind portion of descending colon lying on the lower end of the left kidney, and continued by a sigmoid flexure and rectum, to terminate in the vagina. The liver was of normal size; the gall-bladder contained bile, but was not distended. There was nothing unusual about the kidneys, spleen, or pancreas.

Birmingham.

CASES IN MIDWIFERY PRACTICE.

By J. R. FORREST, M.R.C.S., &c.

PREGNANCY IN A PATIENT WITH FIBROID TUMOUR OF THE UTERUS.

MRS. W——, aged twenty-four, a primipara, was attended by me in her confinement. She was a healthy-looking woman, who said she had never suffered from any serious illness. She had a sister who died nine days after bearing her first child, death being attributed to suppression of the lochia. Her mother, still living, always had difficult labours. My patient was taken in labour about 2 P.M. I was summoned at 10 P.M., and found the pains returning at intervals of about ten minutes. Abdominal palpation revealed the outline of the spine of the child with the concavity to the right, but the breech was not to be discerned. Towards the fundus of the uterus, and on the right side, a hard rounded swelling, dull on percussion, of the size of the fœtal head, could be made out, but on examination per vaginam the head could be felt presenting in the first position. The os uteri was dilated to the size of half a crown on my arrival, the anterior portion of the cervix capping the fœtal head, so that the os was carried far towards the sacrum. The cervix proving extremely rigid, I introduced a Barnes' bag (No. 1), and then No. 2. The liquor amnii was greatly pent-up by the fœtal head, so, puncturing the membranes, I introduced one blade of the forceps, and using this as a vectis, I succeeded in pushing aside the valve formed by the cervix. From the result of my previous examination by abdominal palpation I felt sure that all was not right,

and the presence of a uterine tumour suggested itself to my mind. Fearing hæmorrhage from this source, I gave repeated drachm-doses of liquid extract of ergot, and the head being long delayed in the second stage of labour, I introduced the second blade of the forceps. Extraction was a matter of great difficulty, and I believed that a chief cause of the delay was the distortion of the uterus caused by the abnormal growth. I therefore pushed the tumour towards the right side, and succeeded in extracting the child. The placenta was removed without difficulty, and after its removal the hard swelling previously mentioned was still to be felt. Was there a second child still in the uterus? Of course the rounded swelling observed on my first examination might have been due to this cause, but I did not believe it was, for it was, although hard, not so hard as the head or breech would have been, and its outline was not so distinctly circumscribed as either of these. To make my diagnosis sure, I introduced my hand into the vagina, when the cavity of the uterus was felt to be empty, and on bimanual examination the tumour was found to move with the rest of the uterus. It was free from surrounding adhesions. Most fortunately there was little or no hæmorrhage. I subsequently learnt that my patient had had but little difficulty before her confinement in passing either urine or fæces, but the discharge was great at her monthly periods, and was not regular, the menstrual flow often reappearing after a fortnight. She likewise informed me that she had for months suffered from an intermittent darting pain about the hypogastric and right inguinal regions. With the exception of some soreness of the nipples, she made a good recovery, and the growth very rapidly diminished in size. No doubt a great deal of the difficulty of her case was due to the obstacle which the tumour formed to the equable contraction of the uterus, and this difficulty would perhaps be increased by the administration of ergot; but I think that in the case of a rapidly growing uterine tumour in a young woman, there would probably be a large excess of muscular tissue in its structure, and that the ergot would hence act very beneficially in preventing hæmorrhage.

ABORTION OCCURRING IN A WOMAN THE SUBJECT OF RECURRENT CARCINOMA OF THE BREAST.

Mrs. S——, aged forty-three, had her left breast removed at the Hull Infirmary last Easter. She came under my care at the beginning of August last, and then presented such an enlargement of the axillary glands, and the integumentary and muscular structures were so involved, as to hold out no hope of relief from further operation. I did not know that she was pregnant, and she afterwards informed me that she was not aware of her condition herself; but at the beginning of last November she miscarried, and a fœtus of about four months was the result. My patient recovered from the miscarriage, but died from general exhaustion in about a fortnight, the cancerous mass having become widely spread.

Brandesburton, Hull.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

REMOVAL OF CALCULUS OF BLADDER BY LITHOTRITY IN A BOY AGED SIXTEEN; CURE.

(Under the care of Mr. SYDNEY JONES.)

A. W. P——, aged sixteen, was admitted on March 12th, 1883.

On admission, he complained of pain in the perineum on passing urine, and that the stream was sometimes suddenly stopped; some days he had had to pass water very frequently, and had a smarting pain behind the pubes on walking. He had never passed blood, but the water was sometimes thick. On further questioning he gave a history of pain in the left side over the kidney, which had troubled him at intervals for the last ten or twelve years; sometimes this had been severe and accompanied by vomiting, but has had only slight pain (if any) in the left side for the last six months. The urine was of sp. gr. 1015, did not contain blood, pus, or albumen. Microscopical examination revealed nothing beyond a few amorphous phosphates and epithelial scales. The day after admission he was sounded and a hard stone was struck. On the following day Mr. Sydney Jones performed lithotrity with a medium-sized lithotrite, the stone being caught and crushed in successive portions, the bladder was then washed out with Bigelow's apparatus. The fragments were almost black with a partial white incrustation. Upon the surface they were very hard, composed for the most part of calcium oxalate, and weighed 240 grains. There was no hæmorrhage, and the operation was concluded in less than half an hour. A half-grain morphia suppository was introduced after the operation. He was allowed to get up in a couple of days.

March 15th.—The patient has complained of but little pain, and the urine has been quite clear; it is slightly acid, and deposits a slight sediment, which when examined shows a few typical oxalate of lime crystals.

The temperature went up to 102° on the evening of operation, but was normal before and after that observation. There were no further symptoms.

VICTORIA PARK CHEST HOSPITAL.

CASE OF EMPYEMA OF TWELVE MONTHS' STANDING, WHICH HAD OPENED EXTERNALLY AND THROUGH THE LUNG; CURED IN FIVE WEEKS BY FREE INCISION; REMARKS.

(Under the care of Dr. SAMUEL WEST.)

GEORGE T. N——, aged twenty, a soldier, was admitted for discharging empyema. He had never been laid up with any illness until January, 1882, when he was suddenly seized with pain in the left side, a troublesome cough without much expectoration, and shortness of breath. He was laid up in for two months, and he recovered, as he believed, completely. He remained well until June, 1882, when he noticed a hard lump in the front of the upper part of the chest. It was very painful, and after his admission into the hospital it was incised. About two pints of greenish-coloured matter escaped. This is the opening from which pus still continues to run.

On admission into the hospital in December, 1882, his condition was as follows:—He was a well-built, strong young man, rather thin, but looking healthy, and with a ruddy complexion. The fingers of both hands were markedly clubbed, the wrists of great size, but of normal development. The left side of his chest was bulging in the lower part, but flattened beneath the clavicle. Respiratory movement and voice and breath sounds, as well as vocal vibrations, were completely absent below the second rib, the heart was displaced, so that the dulness reached to nearly two inches to the right of the sternum, and the apex probably lay immediately beneath the sternum. At the left apex the percussion was only slightly impaired, the breath sounds were audible, and the expiration prolonged. In the second intercostal space, an inch and a half from the sternum, was a fistulous opening, from which pus slowly escaped. This was the seat of the incision referred to. The patient expectorated daily about three-quarters of a pint of sweet pus, as he had done since June (six months). The urine was acid and contained no albumen. The diagnosis was made of an empyema of at least six months' duration, which was discharging partly through the lung and partly by the external opening. The patient was kept under observation for three weeks, during which time the temperature was never raised, and the amount of expectoration did not diminish.

Paracentesis was then performed with an aspirator in the fifth space in the third axillary line and twenty-three ounces of laudable pus were removed. A little air came through the aspirator at the end of the operation, and on removing the cannula some was heard to rush into the chest through the upper opening. The whole side became semi-resonant and breath sounds were heard over the whole front and in the axilla. This was probably due to the passage of air in and out through the pulmonary fistula, so that the case had been

converted by the operation into a pyo-pneumothorax. The improvement after the operation was only temporary, and in three weeks the patient was spitting up the same quantity of pus as before and was in much the same general condition, the temperature still not rising above the normal. It was then decided to lay the side freely open, which was done by extending the upper opening and passing a silver catheter through it to the sixth space posteriorly and cutting down upon its tip. The catheter carried a tape to which a drainage-tube was tied, and passed thus right through the pleural cavity from one opening to the other. A large amount of pus escaped. The chest was then covered with absorbent cotton-wool and picked oakum. The heart returned a little way towards the left after the operation. The expectoration diminished at once, and in the course of a week was hardly anything more than a little ordinary bronchitic sputum with an occasional small pellet of pus. The discharge from the wounds was at first copious, but rapidly decreased and remained throughout quite sweet, and the temperature never rose. The chest was syringed out twice daily with a 1 per cent. carbolic acid solution.

Ten days after the operation the expectoration had completely ceased, and the discharge from the incisions did not amount to more than three ounces in the twenty-four hours. Three days later the chest was filled rather too full of carbolic acid solution, and the patient coughed up a little of the acid, showing thus that the opening into the lung was still patent. One month after the operation the patient had gained four pounds in weight; the discharge did not amount to more than an ounce in the twenty-four hours. In the fifth week the upper opening was allowed to close, and in the seventh the lower also, the patient having been up and about the wards for the last three weeks.

On discharge, two months and a half after the operation, the patient was strong, well, free from pain and expectoration, and had no dyspnœa over a moderate exertion. The left side of the chest was much flattened, and feeble respiratory sounds were audible over the upper lobe back and front, but none below. The heart had returned slightly towards the left, and the liver dulness had risen to the fifth rib on the right upper line.

The patient has been seen several times since, the last time nine months after the operation, and was at work and quite well.

Remarks by Dr. WEST.—In this case an empyema had existed probably for nearly twelve months, and had been discharging externally and through the lung for about six months. The patient's health was good; there was no fever or hectic, and the nutrition was well maintained. Under these circumstances the question was raised whether it would not be wisest to leave well alone; but considering the patient's discomfort, and the fact that if an operation were performed his chances of recovery were greatest while his strength and health were good, it was decided to run the necessary risks and lay the side freely open. The rapidity with which the expectoration ceased and the side contracted are surprising in an adult of his age and build. In performing the operation of making a counter-opening, there is, I think, no instrument so convenient as a stout silver catheter—say a No. 10. I have used it in many cases, and prefer it to any form of probe. This case is also an illustration of another fact of great importance. In empyemata, which discharge themselves, whether through the lung or externally, there is, as a rule, no pneumothorax. There is, of course, a communication between the pleura and the outer air—that is to say, there is a channel by which air might enter, but as a rule it does not do so. There was in this case no air in the pleura until some was sucked in by the aspirator, when the chest was tapped some days before the incision was made and this quickly disappeared. In an ordinary case of pneumothorax air enters the pleura because the lung at once collapses; but when the lung is already collapsed, as it is in an empyema, and an opening either externally or into the lung is made, pus escapes until the positive pressure of the empyema is reduced to atmospheric pressure, and then ceases to flow; but in most cases air does not enter the pleura when the opening is small, the pus merely, as it were, runs over when the pleura becomes too full. This appears to have been exactly the condition of things in the present case. The case was not treated antiseptically except that a 1 per cent. carbolic acid solution was used to wash the pleura out with, and that the wounds were covered with oakum and carbolised cotton-wool.

STROUD HOSPITAL.

EPITHELIOMA OF PENIS; AMPUTATION, WITH TRANSPLANTATION OF URETHRA THROUGH A HOLE IN THE PERINEUM.

(Under the care of Mr. STORRY.)

FOR the following notes we are indebted to Mr. Duncan R. Cameron, house-surgeon.

F. T——, a baker, aged fifty-two, was admitted into hospital on July 16th, 1883. He declared he had never had any chancre or clap. Nine months ago he noticed a small tumour about the size of a pea on the under part of the glans close to the frænum preputii. In a month's time the growth was as large as a hazel nut; and he began to suffer from the most painful priapisms. Up to four months ago he had been able always to uncover the glans penis.

The day following his admission Mr. Storry slit up the foreskin and removed a growth about the size of an ordinary hazel nut, together with a portion of the glans penis from the under side of the penis.

In a fortnight the patient was made an out-patient; but he presented himself in about six weeks' time with a return growth and with some considerable infiltration of the penis. His great complaint was his terrible suffering at night from painful erections. There were no enlarged glands in the groin. Mr. Storry, under ether, amputated the penis, after the method adopted by Prof. Thiersch, a short account of which is given in the May number of the *British Medical Journal* for 1878. The urethra was dissected out and transplanted through a hole in the perineum, and a drainage-tube was passed through the whole length of the scrotum. Within twenty-four hours the scrotum filled with blood, which caused the stitches to give way and, of course, delayed union. At the end of six weeks from the date of operation the patient was discharged with the wound almost healed, passing his urine easily and comfortably through the hole in the perineum, to the edges of which the urethra was attached. Three months after the operation he appeared at the hospital to show himself, having gained in flesh, and feeling "a new man," as he expressed himself, declaring he had no pain whatever, and could pass his urine with great ease and comfort, although he was obliged to take down his trousers altogether to micturate.

SHEFFIELD PUBLIC HOSPITAL.

FATAL CASE OF HYDROCHLORIC ACID POISONING; NECROPSY; REMARKS.

(Under the care of DR. DYSON.)

FOR the following notes we are indebted to Dr. Sinclair White.

Henry S——, aged fifty-four years, recently discharged from a lunatic asylum, was brought to the hospital on Nov. 12th, 1883. He stated that he had swallowed two tablespoonfuls of strong "spirits of salts" three hours previously.

On admission he was considerably collapsed; the skin was cold and clammy; the countenance anxious; the pulse small, weak, and frequent. He had vomited several times; the vomited matter was dark in colour, viscid, contained blood, gave a strongly acid reaction with litmus, and a very copious white precipitate with a solution of nitrate of silver. On examining the mouth the mucous membrane was of a whitish colour, with here and there a red patch, showing where the epithelium had been removed. He complained of a burning sensation in the mouth, throat, and stomach; and pressure over the latter viscus caused pain. He did not complain of thirst, even when interrogated. There was no diarrhœa or tenesmus. Solution of potash, freely diluted, was administered, and afterwards lime-water and milk. Hot fomentations, sprinkled with laudanum, were applied over the stomach, and hot-water bottles to the feet. He passed a restless night, vomiting almost incessantly; got weaker next morning, and died collapsed seventeen hours after swallowing the acid.

An examination of the body was made thirty-two hours after death. The mucous membrane of the œsophagus was highly congested in its upper half; the lower half was black in colour, thickened and contracted; the veins stood out prominently, being filled with black blood. Just before its passage through the diaphragm there was a perforation in

the posterior wall of the size of a shilling, the tissues around the opening being black and pulpy, and infiltrated with grumous material. The mucous membrane of the stomach and the first five inches of the duodenum presented an appearance similar to that found in the lower half of the œsophagus. There was a perforation of the size of a florin in the stomach near its pyloric end, and a smaller one in the first inch of the duodenum. The contents of the stomach were found in the abdominal cavity, and the anterior edge of the liver was corroded by the acid. The peritoneal surface of the intestines was injected, and in some places covered with a thin layer of recent lymph. The action of the acid on the mucous membrane ceased about the middle of the duodenum; lower down the lining of the bowel was natural. The larynx and trachea were congested, the upper surface of the diaphragm was injected, and there was some commencing pneumonia in the base of the left lung.

Remarks by Dr. DYSON.—The above case is thought worth recording from the fact that poisoning by muriatic acid is comparatively rare in its occurrence. The spirit of salt used was that crude acid which is sold as such for commercial purposes, and contains, I believe, some arsenic as well as other impurities. The victim was in the habit of buying it to remove stains from his fingers. Perforation of the alimentary canal is rare, too, in this kind of poisoning; in this case it occurred in three places, one at the extreme lower end of the gullet, another in the stomach near the pylorus, and the third in the duodenum, about an inch from its upper end. No cough was present during the time that he was under observation; but post mortem there was well-marked injection of the mucous membrane of the larynx, trachea, and bronchi. The thin white covering seen in the mouth was identical with that described as characteristic of the action of this poison.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Treatment of Spinal Caries with Suppuration.

THE ordinary meeting of the above Society was held on Tuesday last, January 8th, Prof. J. Marshall, F.R.S., President, in the chair. A paper by Mr. Treves excited a long discussion, which occupied the whole evening. Specimens of spinal caries were exhibited by Mr. Treves, Mr. Berkeley Hill, and by Mr. Eve. Dr. Radcliffe Crocker showed three patients affected with scleroderma pigmentosa.

Mr. FREDERICK TREVES contributed a paper on the Direct Treatment of Spinal Caries by Operation, of which the following is an abstract:—The gravity of spinal caries depends not so much upon any special pathological feature in the process as upon the depth at which the disease is situated and its inaccessibility to the usual operative procedures applied to caries elsewhere. Diseased bone cannot be removed from the vertebral bodies, and the morbid products having to travel a great distance in order to be evacuated are apt to induce immense purulent collections. These collections are usually opened at a point remote from the original seat of the disease. In the operation proposed by the author the anterior surfaces of the bodies of all the lumbar vertebræ and—with some reservation—of the last dorsal vertebra, can be reached from the loin. A vertical incision is made near the outer edge of the erector spinæ; the sheath of that muscle and the quadratus lumborum are cut through; the psoas muscle is incised and the vertebræ reached by continuing the operation along the deep aspect of that structure. The details of the procedure were fully described in the paper. By means of this operation the vertebræ can be readily examined, carious or necrosed bone can be removed, a ready and direct exit can be given to all morbid products; an abscess situated in the psoas muscle or in the lumbar region can be evacuated whilst it is yet small and before it has led to a huge abscess cavity. If a large psoas or lumbar abscess exist it can be evacuated at its point of origin and at a spot that, in the recumbent posture, corresponds to its most dependent part. If Hueter's statement be true that the two vertebræ most frequently attacked by caries are the last dorsal and first lumbar, the operation should be capable of frequent application. The author details three cases in which he performed this operation. All the patients made a good recovery. In one of the instances he evacuated at its point of origin a psoas abscess containing forty ounces of pus, and removed from the body of the first lumbar vertebra a large sequestrum measuring one inch by half an inch. The immediate improvement in this patient's condition was very marked. In another case, the psoas abscess had been opened in the thigh some months previously. By this operation a counter opening was made at the point of origin of the abscess from the lumbar spine, and the entire abscess cavity was drained by a tube passing from the origin of the psoas muscle to its insertion. Mr. Treves added that, with regard to the last case in the paper, the patient did well, but the boy had chronic lung disease, and the drainage-tube had to be removed, and he died with extensive cavities in the lungs and amyloid disease of the liver and kidneys. The boy's spine was exhibited. The girl, the first patient, was absolutely well.—Mr. BARWELL thought the condition of caries of the spine accessible to such an operation must always be occult to the surgeon. It was impossible to tell whether there was a single sequestrum to remove or extensive surface caries beyond the reach of the surgeon. But the operation was of use in opening the abscess at the most dependent position, and this would lead to decrease in fever and increase in strength. But Mr. Treves' cases would not show the operation to be very useful in ordinary cases of spinal caries. The first case was one of spinal necrosis, but this was not the usual condition in which the bone was found in cases of spinal caries. In strumous children the extent of caries was usually very great, and the most diseased part was often just in front of the vertebral canal, with extensive superficial disease above and below. He did not think the usual treatment of superficial caries applicable to spinal disease; but the treatment was still valuable as a mode of opening a psoas abscess and of giving access to the spine for examination.—Mr. BRYANT congratulated Mr. Treves on his application of general surgical principles to spinal disease. The operation was only likely to be successful for the removal of bone in a limited number of cases. Many psoas and lumbar abscesses originated quite independently of spinal caries, and led to superficial caries by spreading to the bone. Such abscesses should be opened early and drained efficiently. In many cases of spinal disease no operation could remove the source of the suppuration, for the disease was in the intervertebral substances and not in the bones. But free and early drainage favoured repair in such cases. He thought the tube used by Mr. Treves was larger than necessary. He himself had treated five or six cases of abscess about the spine by free drainage about the back of the crest of the ilium; in two cases he removed sequestra from the iliac crest; in three he failed to find diseased bone which he could remove.—Mr. KEETLEY had been long looking for a case suitable for treatment by erosion and iodoform; but he had as yet failed to find such a case, and he therefore did not think such cases common. In September last a young woman was under his care with a large lumbar abscess. This he opened antiseptically, finding three communicating cavities. There was no caries of the bodies of the spine, but of the transverse process of the second lumbar vertebra. This he scraped off, and then scraped the walls of the abscess and filled the cavity with a solution of iodoform in ether. Some time ago the girl left the hospital apparently quite well. His second case was one of disease of the lumbar spine in a young woman. An abscess had formed, and had left a sinus, which from time to time discharged pus very freely. He examined the spine through an incision. The bodies of the vertebræ were anchylosed and covered with fibrous tissue. There was, however, caries of the dorsum of the sacrum. This case he treated as the first, and the sinus closed well, but a similar sinus over the great trochanter, not treated with iodoform, did not close.—Mr. NOBLE SMITH remarked that Mr. Furneaux Jordan had some years ago introduced this treatment. He had recommended the operation to be done only for cases that resisted other modes of treatment, and steadily became worse and worse, and where there was evidently some local source of irritation. Mr. Smith protested against the employment of the operation in cases of early caries, which were so well dealt with by perfect rest. The general treatment of spinal caries failed from not employing perfect rest by mechanical means.—Mr. C. MACNAMARA alluded to Mr. Pott's treatise, in which the disease was first described. Pott said all the cases were relieved,

and many cured, by counter-irritation. Why this treatment had so lapsed in late years he knew not. In cases of early disease of the spine, an issue kept open for three or four months cured in many instances. Pathology had shown that the diseased area was limited and surrounded by healthy medulla, from which new bone was readily formed in the cure of the affection. Sir James Earle supported Pott, but advocated also a certain amount of mechanical support, which Pott had deprecated. But cases were met with in which counter-irritation and other means failed; and in those otherwise hopeless cases the operation proposed by Mr. Treves would be an enormous advantage. Free exit of the pus in the large abscesses would favour repair in such cases.—Mr. W. K. TREVES thought that the operation was applicable to the cases of abscess in connexion with spine disease, and not simply to cases of caries of the spine, the majority of which ran their course without suppuration. Necrosis of the spine gave rise to acute and severe symptoms, quite different from the more chronic and less severe ones caused by caries.—Mr. R. W. PARKER sympathised with Mr. Treves in his desire to render spinal caries more accessible to treatment than it was at present. At the East London Hospital for children he saw many cases, and anything less satisfactory than the present treatment it was difficult to imagine. He had collected together the cases which had been under his own care during the past few years, and the following was an analysis:—There was a total of 183 cases; of these there was no definite record as to the seat of disease in thirty-four cases, in nine it was in the cervical region, in eighty-two in the dorsal, in twenty-one in the dorso-lumbar, in thirty-seven in the lumbar and lumbo-sacral. In the nine cervical cases suppuration occurred only twice, in the eighty-two dorsal cases suppuration occurred six times, six times also in the twenty-one dorso-lumbar cases, while in the thirty-seven lumbo-sacral cases suppuration occurred twenty-eight times. Thus he could not agree with Mr. Treves that "the gravity of spinal caries depends not so much upon any special pathological feature in the process as upon the depth at which the disease is situated." He had been struck with the infrequency of pus formation, as the above figures testified. On the other hand, it was remarkable in how large a proportion of the total cases the suppuration, when it occurred, was found in the lumbar region. This would add justification to Mr. Treves' proposal to operate in suitable cases. He agreed with the last speaker that the operation was one for abscess evacuation rather than for caries. The difficulty lay in making a diagnosis of the presence of pus; he felt this to be an objection, for examination even per rectum often failed, a plan which he thought ought nevertheless to be frequently adopted. He had recently, for his colleague, Dr. Eustace Smith, opened a large abscess which was pointing at the edge of the quadratus lumborum muscle; this appeared to be of the variety mentioned by Mr. Bryant, a case where no vertebral disease could be found. In this case it was remarkable how small a space existed between the last rib and the crest of the ilium in young children, especially in cases of spinal disease. In young adults doubtless this would prove less and less an objection. On the whole, then, the operation he thought would prove valuable for the letting out of pus; but as regarded the caries, it would be better not to interfere; it was better that the process of repair should be gradual, as being less likely to lead to injury of the nerve structures within the spinal canal. A method of treating psoas abscess, practised by Lister and many others, consisted in making an incision above Poupart's ligament, and he thought this a simpler and equally effective means of getting at the pus.—Mr. HULKE remarked that often a long period elapsed before the first commencement of suppuration and the pointing of an abscess.—Mr. PARKER, in reply to Mr. Hulke's remarks, said that many of his cases were under observation for long periods, and until convalescence set in; and he concluded that pus was not present in any appreciable quantity, because it did not make its appearance externally. His observations were not, however, entirely clinical. He had made two or three post-mortem examinations, and had been struck with the small amount of pus. This was generally inspissated and caseous, and in proportion to the extent of the disease seemed quite an insignificant feature.—Mr. HOWARD MARSH thought the operation was good for the treatment of abscess, but not for the treatment of caries of the spine. Sequestra were rarely present. The suggestion was of great value for the cases of large abscess in connexion with disease of the spine.—Mr. SAVORY objected that by no reasonable operation in this region could sufficient exposure of the parts be made so as to examine and treat the disease. He had seen operations for the treatment of fractured spine, and he was so impressed with their inadequacy and dangers, that he held they were not justifiable, and allowing for the difference of the conditions in the two cases he believed the operation to be inadequate for the treatment of spinal caries. In operating on caries of the tarsus, how difficult it was to be sure of removing the whole disease without encroaching upon other parts. Further, in all operations for caries, unless the right time were taken, how often harm rather than good was done. Caries was but the result of a previous morbid state. If the operation be done when this previous mischief was progressing, it did great harm by mechanical violence. It was impossible to foretell when sequestra were present, and it was not right to explore, as so many cases recovered when treated by simpler and safer means. Did Mr. Treves regard all cases of caries of the spine as one and the same? were they all tubercular? He hoped Mr. Bryant would give the pathological facts on which he based his belief in the occurrence of psoas abscess independently of spinal disease.—Mr. EVE had brought specimens of disease of the twelfth dorsal and first lumbar vertebræ. Of sixty museum specimens thirty were of the lower dorsal and upper lumbar, but in only a very few of these was the first lumbar vertebra affected, and in nearly all the twelfth dorsal vertebra. As this vertebra could be reached by Mr. Treves' operation, they at least supported his practice.—Mr. BRYANT had had four cases of acute suppuration of the psoas muscle following violent strains. All got well after incision. He had seen in the post-mortem room several instances of psoas and iliac abscess without any disease of the spine; and other cases of dried-up psoas abscesses without any spinal disease at all.—Prof. MARSHALL alluded to a gouty gentleman who died of pyæmia after an accident. An abscess in his left psoas was found without disease of the spine, and was doubtless due to suppuration of a hæmatoma. The greatest mobility of the spine was between the eleventh and twelfth dorsal vertebræ and twelfth dorsal and first lumbar vertebræ. This might account for the occurrence of disease so frequently at this situation. He had often explored the side of a lumbar vertebra through a sinus in the loin.—Mr. SAVORY remarked that he had referred only to cases of large chronic psoas abscess.—Mr. TREVES, in reply, said he felt that the title of his paper was not only somewhat unfortunate, but also that the first of the recorded cases was in a sense a little in opposition to the object with which the paper was written. Many of the speakers had very reasonably surmised that the procedure was deliberately directed against the bone, and had for its principal purpose the removal of sequestra from the spine. He entirely agreed with all those who condemned such an object, and would be strongly opposed to the gouging away of carious bone from the spine and to the indiscriminate removal of diseased parts. Sequestra were very rare indeed in cases of this kind, and in the first of his cases the discovery of the sequestrum that he removed was entirely unexpected. The main purpose of the paper was to detail an operation, founded upon precise anatomical data, whereby the lumbar vertebræ might be reached, and pus arising from bone disease be evacuated at its point of origin. Mr. Barwell was opposed to the operation because the exact site of the malady was not always certain. In answer to this he would ask which step was more serious, a simple exploratory incision down to the spine, under antiseptic precautions, or the leaving of a case of uncertain bone disease to quietly develop until it reached such proportions as to be readily recognised. Mr. Bryant's observation that pus in contact with normal bone might in time lead to erosion of that bone was a strong argument in favour of evacuating a psoas abscess as early as possible. He was unable to see in what way Mr. Furneaux Jordan's proposed operation, mentioned by Mr. Noble Smith, resembled the one he had detailed. He would agree with Mr. Smith that rest was of very great importance, but believed that serious evils had followed a too great leaning towards this measure. It had led to the indiscriminate treatment of all spinal cases by apparatus. The apparatus had been considered all-sufficient. In many cases this treatment had been practised in an unworthy manner, and had been a great hindrance to progress in the treatment of spinal disease. He did not think that the opening of a psoas abscess in the iliac region or just above the iliac crest was to be advised.

The opening was some distance from the seat of the disease. Drainage was less easy, and the operation less safe on the whole. He had found no difficulty in fully exposing the diseased part; there was no tearing of muscle required; the bone was bared fully by the abscess, and when the finger was introduced into the abscess cavity the diseased region was found to be as well exposed as by dissection.

PATHOLOGICAL SOCIETY OF LONDON.

President's Address.—Disease of the Pancreas.—Medullary Sarcoma. — Vacuolation of the Liver. — Pulmonary Aneurisms.—Actinomycosis.

THE annual general meeting of this Society was held on Friday, January 4th, Mr. J. Whitaker Hulke, President, in the chair. A large amount of routine business was transacted and the President delivered an address, a fairly full report of which here follows.

Mr. HULKE first alluded to the fact that he had forgotten the custom of the Society that the newly elected President should deliver a formal address on the occasion of his first taking the chair. After some thought it seemed to him that as the Society had now advanced far into the fourth decade of its existence, a sketch of its career might not be wholly without interest. The Pathological Society of London was inaugurated in February, 1846, with a roll of 98 members, and immediately it became so popular that at the end of its first year it had 130 adherents, and thence onwards with small fluctuations its numbers had increased, until at the present time its roll contained nearly 700 names. Of the 98 "original members" only 19 now survive, one being the first President, Dr. C. J. B. Williams. Very early, indeed, in the first year of its existence, the Society instituted an "honorary membership," to which, in April, 1847, at a general meeting it elected eight of the most eminent pathologists of that day—Andral, Cruveilhier, J. Vogel, A. W. Otto, J. Henle, C. Rokitanski, W. P. Allison, and W. Stokes. We might say of them, as also of many of our ordinary members who have passed away, "Neither are they dead, silent," for their example and the fruits of their work remain to their successors. Mr. Hulke's own entrance into the Society occurred just thirty years ago, in the presidentship of James Moncrieff Arnott; and he recalled yet those early days, when he listened with eager attention to the words of wisdom that fell from the lips of the elder members. In its first decade, the Society encouraged the study of morbid anatomy rather than that of morbid processes. That this was intentional was apparent from the injunction contained in one of the laws, "That in the remarks made in reference to specimens exhibited, all discussions on abstract points shall be as far as possible avoided." The foundation of the Society followed hard upon the great discoveries in normal "general anatomy," "histology," as it is now termed. In this country the pioneers in normal histology were not solely anatomists, but men actively engaged in the practice of medicine and surgery. Brought by their calling into daily contact with disease, it would have been unnatural had they not extended their investigations beyond the limited field of normal anatomy into the wider domain of the finer disorders of tissue, with the coarser features of which they were already familiar. The accumulation of facts was the Society's first care. But inferences could not be altogether avoided. The circumstances of practice naturally led up to this inquiry: Who, having observed the clinical phenomena of inflammation and possessing some acquaintance with its products, could avoid speculating as to its essential nature and its causes, &c.? Who, familiar with the clinical causes of cancer and a fibrous tumour, and possessing some knowledge of their histology, could avoid the interesting question, What is it which confers on the one the endowments which we sum up under the word "malignant," and gives to the other those implied by the term "innocent"? How do these vital differences arise? The idea was for some years prevalent that from the mere inspection of its cells (without reference to the tissues around them) a decision could be formed of the nature of a tumour, particularly in respect to the all-important question of its influence on the patient's expectation of life. During the first decade, however, no dominant theory arose; but at the commencement of the second, in 1858, the appearance of Virchow's "Cellular Pathology" gave a distinct direction to pathological thought. Here the importance of the "cell," as the centre and starting-point of pathological processes, was taught with a fertility of illustration and a distinctness and clearness that compelled acceptance. The impression made by the "Cellular Pathology" was deepened by the same author's "Die Krankhaften Geschwülste," published in 1863. In 1867 the Society appointed a committee, the value of which has been proved by its survival to the present day. The object of the Committee on Morbid Growths and Processes was expressed in the resolution which gave it being—to be "to ascertain if any, and what, relation exists between anatomical structure and those clinical features ordinarily regarded as malignant." Its scope was subsequently extended, and it became a standing Committee of Reference on Morbid Structure. After holding during several years an unquestioned sway, Virchow's doctrine of the origin of formed products of inflammation at length found a formidable rival in the doctrine of diapedesis, which teaches that lymph and pus-corpuscles (leucocytes) are not, as was lately thought, the offspring of connective tissue corpuscles and of the germinal matter of physiologically equivalent cells, but were white blood-corpuscles that had escaped through the walls of the bloodvessels. The doctrine of diapedesis has never appeared to Mr. Hulke to be free from serious difficulties. Of these he mentioned three—the inconceivable numbers and rapidity in which the white blood-corpuscles must be formed in cases of extensive inflammation; the great obstacles they must have overcome in some of their wanderings to reach such resting-places in which they are sometimes found; and the singular change of endowments which the white blood-corpuscle sometimes undergoes in becoming a pus-corpuscle. The changes in extensive erysipelas and in suppuration of the eyeball occurring in pyæmia were dilated upon as bearing out his arguments. To his mind Virchow's doctrine and that of the origin of pus-corpuscles by diapedesis were not reciprocally destructive. Accepting this dual origin and faculty of self-multiplication, the phenomenon of their rapid appearance in enormous numbers in the erysipelatous limb loses much of its difficulty of explanation. Why the white corpuscle, become pus-corpuscle, should lose its pristine innocence and acquire so virulent a nature may find its explanation in the observation made by Hueter, that the pus-corpuscles of septic pus contain within them schizomycetes. The doctrine of diapedesis has been invoked to explain the origin of the cell elements of certain tumours, and notably of cancers. During the whole existence of the Society no theory had arisen that in its practical bearings could rank in importance with one which in the present decade had gained so many adherents. By this was meant the doctrine which teaches that the inception and maintenance of the inflammatory process were due to the influence of those living agents which appear to be inseparably connected with the process of putrefaction—a doctrine which has been so ably expounded by Sir Joseph Lister, and which one of its ablest and most thorough-going continental advocates, the late Professor Hueter—whose early death all must deplore—embodied in the aphorism, "Without schizomycetes, no sepsis; without sepsis, no inflammation." Prof. Billroth's work, "Untersuchungen über die Vegetations-formen von Coccobacteria septica," dedicated by the author to the "Deutsche Gesellschaft für Chirurgie," was quoted. If all that had been lately written about these forms of plant life were true, they would appear to take an active causative share in nearly all the ills to which flesh and blood are heir. The bare enumeration of these disorders was enough to show how large and how important a field for discovery was here open to those who have the requisite leisure and opportunity and skill for such investigation. Mr. Hulke referred to the report of the subcommittee appointed in 1872 to investigate "the morbid anatomy and pathology of pyæmia and septicæmia," and to the able communication by Mr. Cheyne on the microbes occurring in wounds, as testifying to the interest which the Society had taken in this important question. Mr. Hulke referred to the fact that the first volume of the Society's Proceedings consisted of but 156 pages, without a single illustration and no binding, and now for this small volume we had the stout profusely illustrated book which for several years past the members had been accustomed to receive. Probably no archives in any language contained such a wealth of carefully observed and well-reported facts relating to morbid anatomy and pathology. Allusion was made to the discussions upon subjects pre-

viously selected by the Council, and formally announced, which were begun in 1873 under the presidentship of Sir W. Jenner, and were for some years held annually, but lately biennially. Mr. Hulke had sometimes thought that these debates lacked the vigour which springs from spontaneity.

Dr. DUFFIN proposed, in eulogistic terms, a vote of thanks to the President for his most interesting and learned address. —Mr. GEORGE LAWSON seconded this vote, which was carried with acclamation.—Mr. HULKE briefly replied.

Dr. NORMAN MOORE read notes of three cases of Calculus of the Pancreatic Duct. The first specimen was a pancreas with a dilated duct, containing numerous irregular calculi of carbonate of lime. The duct was most dilated near the head; there were stones in all parts of it, but it was nowhere completely closed. The patient was a man aged forty, who had died of diabetes. The bile-duct was pervious, and there was never any jaundice. The second example was a pancreas with its main duct slightly dilated, and containing a calculus of irregular shape, around which was a large abscess in the head of the organ. This abscess pressed upon the orifice of the bile-duct sufficiently to produce great distension of the gall-bladder. The patient was a man aged forty-three, who died in St. Bartholomew's of an attack of pleurisy following gouty symptoms. The third specimen was a pancreas with great dilatation of the duct throughout its length. Near the orifice the duct was blocked by a small calculus of irregular shape. The whole gland was very hard, and to the naked eye showed a great increase of connective tissue. The papilla in the duodenum was enlarged, and the hardened tissue of the pancreas had constricted the bile-duct so as to cause complete obstruction. The liver was of a deep-green colour, intensely hard, with general dilatation of the ducts, which everywhere contained watery bile and bile gravel. The glands in the hilum of the liver showed no new growth, and a careful search showed none anywhere in the body. Microscopic sections of the pancreas revealed an extensive increase of connective tissue. Many bands of old growth traversed the gland, and there were patches of the nuclei of a more recent connective tissue growth. Some normal acini were visible, but in most of the gland cells were more or less atrophied. No cells like those of the acini were to be found beyond their proper limits, nor were there any other signs of carcinomatous growth; the morbid change was of the same kind as that found in the liver of cirrhosis. Dr. Wickham Legg had shown that dilatation of the hepatic ducts would produce a connective tissue increase throughout the liver. In this pancreas a gradual dilatation of the ducts, due to the occlusion of the main duct by the calculus, was probably the cause of the new connective tissue growth throughout the gland. Cirrhosis of the pancreas as a result of calculus had not been described before. The patient was a man, aged sixty-four, who was admitted to St. Bartholomew's Hospital in July, 1883, and died in October. He had been ill for a month, and jaundiced for three days, on admission. The liver was not then enlarged, but on Aug. 13th was distinctly increased in size. During the illness the patient had many attacks of vomiting, but no colic. Of abscess of the pancreas due to calculus two cases were exhibited by Dr. Norman Moore at this Society in 1882, and this is the only one which had occurred since in the post-mortem room at St. Bartholomew's Hospital. In the three cases of pancreatic calculus shown there was jaundice in only the last, and colic in none; but in all three attacks of vomiting were noticeable clinical features.—Dr. WILKS asked whether Dr. Moore associated disease of the pancreas with diabetes. At the commencement of the debate on diabetes Dr. Wilks had alluded to the matter. Quite recently he had received a pamphlet from Lancereaux, of Paris, containing clinical lectures on diabetes, in which malady fatty and wasting disease of the pancreas had been found.—Dr. BURNEY YEO inquired whether any diagnosis of pancreatic disease had been made during life.—Mr. MORRIS had seen cases of pancreatic calculi associated with calculi in the mesentery, where they had set up abscesses. In the "Journal of Medical Sciences" Dr. Johnson had collected all the published cases, including those of what might be called wandering pancreatic calculi.—Dr. HADDEN had recently made an autopsy on a case of diabetes in which there was a calculus in the pancreatic duct.—Dr. MAHOMED had seen two examples of disease of the pancreas associated with diabetes: in one instance it was associated with lipæmia, and the pancreas seemed to be smeared all over with a sort of atheromatous material. And the blood-clots had what had been spoken of as a raspberry-cream colour.—Dr. GOODHART mentioned an instance of fatty degeneration of the pancreas found in a case of diabetes.—Dr. HALE WHITE had collected the notes of all the post-mortem examinations on diabetes made at Guy's Hospital, and in three or four of these mention was definitely made that the pancreas was either wasted or fattily changed.—Mr. HULKE thought that this discussion had elicited a greater number of positive facts on the point at issue than did the debate on diabetes.—Dr. NORMAN MOORE, in reply, said that from many macroscopical and microscopical examinations of the pancreas he had been unable to come to any definite conclusion as to the presence of real disease. Even in the hard and large condition of the pancreas met with in cases of chronic cardiac obstruction he had found no microscopical change. He could add nothing in the way of diagnosis unless repeated vomiting might afford some suggestion as to the presence of pancreatic disease when signs of disease elsewhere were wanting. He had seen instances of abscesses in the pancreas which had spread beyond the immediate confines of the organ, but none such as Mr. Morris described.

Mr. F. BOWREMAN JESSETT showed a specimen of Medullary Sarcoma of the Skull, taken from a child aged nineteen month. When first seen a swelling was to be felt as large as a chestnut in the right temple. The child's father was an extraordinary living specimen of multiple lipomata. The father's sister presented a similar appearance. The father's mother had died at the age of fifty-three with a large tumour at the back of the head. There was a history of phthisis on the mother's side. No injury could be ascribed as the cause of the tumour in the child. The tumour grew rapidly; the veins about it were dilated and prominent. Later on the eye was pushed forwards from the orbit on the right side; and fresh nodules had appeared, one at the top of the head, another behind the right ear. The child gradually sank and died, five weeks after the lump was first seen. At the autopsy the globe of the right eye was seen to be completely extruded from the orbit. The growth was found to spread widely through the bones of the right parietal and temporal regions. The right cerebral hemisphere was compressed to a great extent, quite a cup-shaped depression being formed on it. Some new growth also developed from the internal aspect of the left parietal bone. The brain and all the other organs in the body were healthy, including the lymphatic glands. The insidious, painless mode of onset was alluded to. The absence of any symptoms except frequent sighing during the course of the disease was thought to be remarkable. Mr. Lawson had shown a similar case, which had originated from the sphenoid bone; and Sir James Paget had related a case which occurred in a boy, aged fifteen, without any cerebral symptoms. Other cases were also referred to.—Mr. HULKE said that he held the view that many of these growths originate in the pia mater or dura mater and pierce the skull from within outwards. The absence of cerebral symptoms in such cases was well known, and he had had many illustrations of it.—Mr. TREVES thought that the case was far more likely to have been one of sarcoma, commencing in the meninges.—Mr. GEORGE LAWSON mentioned a case narrated by Mr. Tweedy in the Ophthalmic Reports, where an osteo-sarcoma caused bulging of the eye. Mr. Tweedy had removed a great portion of the orbital tumour, but the patient subsequently died; and a much larger amount of new growth was found in the cavity of the skull than had ever existed in the orbit.

Dr. HALE WHITE read a paper, written conjointly by Dr. SAVAGE and himself, on Cystic Degeneration of the Liver. The authors reminded the Society that last year when they showed specimens of the various forms of holes in the brain there was one variety in which the change in the brain was part of a general formation of small cavities in the different organs of the body. It was urged at the time, in opposition to this view, that the holes were due to post-mortem decomposition, for in the liver a spongy condition from this cause is well known. Since the publication of that paper the authors had had brought under their notice the case of a woman suffering from acute mania in whom a similar condition of liver was present to that described in the paper on holes in the brain, and also a case in which the holes were clearly post mortem. The differences to the naked eye were that in the liver affected by decomposition the holes were irregular, and contained gas which formed bubbles under the capsule, whilst in the genuine cystic degeneration the holes were regular and contained no bubbles. Under the microscope the difference was most marked, for in the latter case there was extreme vacuolation of the hepatic cells, one or

more minute vacuoles appearing in the cell, gradually enlarging and pushing aside the protoplasm; soon the cell bursting adjacent vacuoles coalesced, and a large hole was formed. In the post-mortem case no such appearance was present. Under the microscope the vacuolated liver here described was indistinguishable from those exhibited last year, and in which all the other viscera were affected; therefore it was concluded that in those cases also the universal formation of small cavities was, as the authors then maintained, ante and not post mortem. They therefore came to the conclusion that this universal cystic degeneration, as a result of vacuolation, was a genuine but hitherto unrecognised condition which most commonly affected the liver, frequently only the liver and kidney, and in rare cases most of the viscera in the body.

Dr. SAMUEL WEST read a paper on Aneurisms of the Pulmonary Artery. The first case occurred in a man, aged forty, a labourer who had suffered from a chronic cough for twenty years. Several months before admission he had had hæmoptysis, and three weeks before he had suffered from pain in the left mammary region and had lost much flesh. For the last twelve days of his life he had brought up half a pint of blood each day. At the autopsy the right lung was found to be emphysematous; the left lung adherent all over. Its upper lobe contained a cavity as large as a Tangerine orange, in which there existed an oval aneurism the size of a walnut. The aneurism presented an irregular triangular rent and was lined with laminated clot. It had contracted adhesions. The second case also happened in a male, aged twenty-one, a seaman who had formerly been in the army. He had suffered from hæmoptysis and cough. On admission to the Victoria-park Hospital phthisical disease of the right apex was discovered with ulceration of both vocal cords. Hectic fever of well-marked character persisted throughout his illness, although for a long period he continued to bring up very large quantities of blood. It was estimated that he must have lost more than twenty pints of blood during the last weeks of his existence. At the autopsy the left lung was found adherent at the apex, but emphysematous elsewhere. A sinuous cavity existed in the anterior part of the lower lobe. The right lung was adherent, the lower lobe collapsed, and a loculated empyema existed near the base. The aneurism had ruptured by a small linear slit. Dr. West divided cases of fatal hæmoptysis into two classes, according as the blood proceeded from the trachea and bronchi or from the lungs. He referred now only to the latter class, of which the literature was very scanty. Papers by Douglas Powell and one other author were mentioned. Out of twenty cases, Dr. West had only once failed to find an ulcerated pulmonary vessel to account for the fatal hæmoptysis. Aneurisms of the pulmonary artery were generally small, not larger than a small cherry, rarely multiple, occurred in the large branches of the arteries, in chronic cavities or their trabeculæ. There was no relation between the size of the cavity and the presence of an aneurism; their development was due to want of support of the vessels; they were not to be diagnosed till severe hæmorrhage had set in; they affected no particular age.

Mr. FREDERICK TREVES showed a living specimen of Actinomycosis in a man aged forty-six. The disease had begun as a nodule about the left side of the neck, and had spread downwards over the chest on the same side. All stages of the malady were represented, from minute solid outgrowths to large masses with suppuration and sloughing. Microscopical preparations will be shown later on in the session. The disease had been described by Ponfick as it occurred in cows and horses, but Israel had brought forward the first case in a man.

Mr. CHRISTOPHER HEATH exhibited a living specimen of a man, aged forty-three, with Recurrent Parotid (?) Tumour, which had been removed five years previously by Mr. Wheelhouse of Leeds. The new growth had attained an enormous size, exceeding its original large dimensions. Mr. Heath proposed to operate again on Jan. 9th.

ACADEMY OF MEDICINE IN IRELAND.

AT the opening meeting of the Obstetrical Section, held on Nov. 23rd, 1883, Dr. G. H. Kidd, President, occupied the chair. He expressed his thanks for the honour paid him in electing him as President, the work of which during the past session he reviewed.

Submucous Fibroid Tumour.—Dr. ATTHILL exhibited a submucous fibroid tumour, globular in shape, about the size of a turkey's egg, which he had removed from the uterus of an unmarried lady, aged thirty-five. The patient had suffered for more than two years from constantly recurring uterine hæmorrhage, which had of late become almost continuous and accompanied by great pain. By local examination the uterus was found to be completely filled by the tumour exhibited, which had been removed by the écraseur after dilating the cervix. The tumour was attached by a wide base to the fundus, but examination after its removal showed that it had been separated from the uterine wall by a distinct capsule, its connexion with the uterus being maintained by a thin investiture of the proper muscular tissue of the uterus, and of the mucous membrane which had become stretched over it during its extrusion from the uterine wall. Dr. Atthill emphasised the point that this was not therefore a polypus properly so-called, which should consist of a continuous outgrowth of uterine tissue. There would be no difficulty in tracing the continuity of the uterine muscle into the substance of a true myomatous polypus, while the presence of a capsule causing discontinuity was characteristic of a true fibro-myomatous tumour. This distinction had been drawn by Paget, but had not been sufficiently attended to in current works.—Dr. MACAN and the PRESIDENT dissented from the definition of a polypus as laid down by Dr. Atthill. They understood by a polypus a tumour possessing a pedicle, other considerations being immaterial and having no effect on treatment.

Chronic Inversion of the Uterus.—Dr. MACAN showed the fundus of a uterus which had become inverted nineteen years ago after the only labour of a woman now aged forty-one. Since then she had suffered from severe menorrhagia, and had been lately treated by pessaries for prolapse. The upper portion of the vagina was extremely narrow, and the vagina itself so rigid as to preclude the possibility of introducing a hand. He therefore determined on amputating the uterus, bringing the edges of the stump together by a number of sutures, after the method advocated by him for the first time some years since in a paper read before the Dublin Obstetrical Society. The patient was able to walk about a week after the operation, her temperature never having exceeded normal limits.—Dr. ATTHILL had found attempts to replace recently inverted uteri very dangerous, their tissues were so soft and lacerable. In one such case his fingers had gone right through the walls of the inverted uterus. When of long standing, the inversion could be more safely treated, but re-inversion might then prove of no great use. Amputation properly performed was certainly less dangerous than prolonged and forcible efforts at reduction.—The PRESIDENT had frequently practised the operation as described by Dr. Macan, introducing the ligatures first, then amputating with the écraseur, and finally bringing the surfaces of the stump together. He had never seen ill effects attend such an operation.

Induction of Premature Labour.—Dr. PUREFOY read a paper on the Induction of Premature Labour, illustrated by three successful cases. Having sketched the early history of the operation and the various methods employed, the author specified three classes of cases in which the induction of premature labour was indicated. First, in the cases of women with pelves so narrow that the passage of a living, full-timed child is impossible, whilst an undeveloped yet viable child might safely be delivered. Secondly, where several previous successive pregnancies had been interrupted at a certain period by the children's death. Thirdly, where the women suffer from morbid conditions likely to disappear or become greatly mitigated by delivery. Difficulties arise in practice owing to doubts as to the exact period of pregnancy and as to the true amount of pelvic deformity. The presence of deformity increased the difficulty of fixing the period of pregnancy, while the patient's own calculations are unreliable. The size of the child's head must be assumed from that of its known averages at different periods of gestation, while the available pelvic space must be carefully measured, as is often necessary by the introduction of the entire hand into the vagina. In many cases the conjugate of the brim being the diameter mostly, if not entirely, at fault, it will then suffice to measure this accurately. The extreme limit of pelvic deformity to which this procedure is applicable may roughly be stated to have been reached when the true conjugate diameter measures 2·75 inches. Dr. Purefoy then narrated the histories of three successive labours induced at the eighth

month in a woman with a generally contracted pelvis whose first labour had only been concluded by a difficult cephalotripsy, subsequently succeeded by a considerable amount of vaginal sloughing. On each occasion he had found vaginal dilatation of much service in keeping up the uterine action. He did not doubt that the children's lives had been saved by the early application of the forceps, and before the os had been fully dilated.

Reviews and Notices of Books.

The Book of Health. Edited by MALCOLM MORRIS. London: Cassell and Co. 1883.

THE growth of sanitary science within the last ten years has been prodigious. On all sides a demand for increased knowledge with regard to the laws of health has sprung up. To meet this demand an institution, named in honour of the late illustrious Professor of Hygiene at Netley—the Parkes Museum—has been founded, where the public are instructed practically by means of specimens and lectures in all the details of sanitary science. But besides this important institution, we have an annual congress, which meets at some one of the chief towns in the kingdom to discuss matters of private and public hygiene. Then there are frequent exhibitions of special sanitary appliances, and the public interest in them is shown in their financial success; whilst, lastly, several of the leading educational bodies, among whom the London Society for the Extension of University Teaching may be honourably mentioned as having taken the lead, include hygiene among the subjects to be taught systematically in their classes. Still, with this active development, one thing has been lacking, and that has been an authoritative treatise on the subject available for the general public. That want has not been felt by the profession, for long before hygiene became a recognised branch of study among us, Parkes's classic treatise was ready to our hand, a treatise which his successor has spared no pains to keep the foremost work on the subject at the present time. But Parkes's work is too technical for the general public, whilst the numerous health primers, pamphlets, and popular lectures have been either too diffuse or too feeble to do more than rouse a transient interest. In undertaking the task of supplying this much-needed want, the publishers have acted wisely in dividing the subject into two distinct works, the one referring to the sanitary requirements of the dwelling-house, the other bearing essentially upon the laws of health as they affect the individual. It is to this latter work we now especially refer. The work opens with an introductory chapter by Mr. Savory, dealing thoroughly, but succinctly, with the main questions of life and health, the organic and animal functions, the distinctive features of life, and man's place in nature. Then follow two chapters, one on Food, the other on Stimulants and Narcotics, both containing a vast amount of information on their respective subjects. Then comes what is undoubtedly the masterpiece of the whole volume—Dr. Crichton Browne's article on Education and the Nervous System. We feel proud that such excellent work has been brought before the public as a specimen of what members of our profession are capable of in the expression of scientific thought, and in the way of literary attainment. Dr. Crichton Browne has found a large field open to original inquiry, which he has worked with the greatest success, whilst many old topics and moot points of debate are treated with freshness and originality. This valuable contribution should be reproduced in a separate form, so that it might find its way into the hands of all those interested in the cause of education. Our space, unfortunately, does not permit us to notice all the separate articles which comprise the work; but it will be sufficient to mention those which we think will be of nearly as much value to the professional as to the lay reader, and these are the chapters on the Influence of our Surroundings on Health by Dr. J. E. Pollock, Health in India by Sir Joseph Fayrer, Climate and Health Resorts by Dr. Herman Weber, and the Influence of Dress on Health by Mr. Treves; all these show fresh, crisp, original work. The chapters dealing with the special organs, as the teeth, the throat, voice and speech, the eye and sight, the skin and hair, are carefully done, though, of course, they convey nothing that is of interest to members of the profession; yet they may be taken as models of the mode in which such information should be conveyed to the public. From beginning to end there is nothing the most jealous observer can put his finger on as overstepping the limit of professional reserve in such matters. In conclusion, we congratulate the editor on the result of his labours, and in having secured the aid of such efficient colleagues. The work is what it aims to be—authoritative, and must become a standard work of reference not only with those who are responsible for the health of schools, workshops, and other establishments where there is a large concourse of individuals, but to every member of the community who is anxious to secure the highest possible degree of healthy living for himself and for his family.

Experimental Pharmacology. A Handbook of Methods for Studying the Physiological Actions of Drugs. By L. HERMANN, Professor of Physiology in the University of Zürich. Translated, with the author's permission, with notes and additions, by ROBERT MEADE SMITH, M.D., Demonstrator of Physiology in the University of Pennsylvania. Philadelphia: Henry C. Lea's Son and Co. 1883.

LECTURERS on materia medica have long experienced the want of a good student's book on pharmacology, and we trust the work before us will to some extent satisfy their requirements. Professor Hermann's reputation as a physiologist is well known in this country, and it is a great convenience to have his classical work on the action of drugs in a form available for English students. Dr. Meade Smith has done much more than play the part of a mere translator, he has added so much to the original text that this edition must be regarded as a joint production. The introduction is devoted to an explanation of the scope of pharmacology and to a consideration of the various methods of pharmacological investigation. Pharmacology in its widest sense embraces the study of drugs from all possible points of view, and the information thereby acquired may be useful under the most diverse conditions: to the physician, to ensure the recognition and proper treatment of cases of poisoning and to indicate the employment of drugs for therapeutic purposes; to the public, to teach them to avoid noxious substances; to the physiologist and pathologist, to enable them to apply their knowledge to the advancement of their own sciences. Experiment, we are told, must be the instrument most relied on in pharmacology, not only because it alone permits the study of all poisons in all doses and on the most various organisms, but because it is indispensable to the acquirement of any more profound knowledge of the *modus operandi* of poisons than can be obtained by a mere inspection of cases of poisoning.

The first part is devoted to a study of the action of poisons on isolated organs, and comprises an account of their action on the blood, muscles, nerves, and heart. The second part deals with the investigation of the general action of poisons. The sections on the chemical alterations of poisons in the economy, on the explanation of the symptoms they produce, and on their action on the circulatory, respiratory, and digestive apparatus are excellent and will repay careful study. In an appendix the subject of antagonisms is discussed by the editor, and an account is given of the various modes of inducing narcosis in animals. The book is well

illustrated, and many of the diagrams are excellent. We trust that in any future edition that may be called for, the publishers will not endeavour to perpetuate the now almost extinct custom of sending out books with uncut edges.

The Dispensatory of the United States of America. By Dr. GEO. B. WOOD and Dr. FRANKLIN BACHE. Fifteenth Edition. Rearranged, thoroughly revised, and largely rewritten. By H. C. WOOD, M.D., Professor of Materia Medica and Therapeutics in the University of Pennsylvania; JOSEPH P. REMINGTON, Ph.G., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy; and SAMUEL P. SADTLER, Ph.D., F.C.S., Professor of Chemistry in the Philadelphia College of Pharmacy and of General and Organic Chemistry in the University of Pennsylvania. Philadelphia: J. B. Lippincott and Co. 1883.

THE first edition of the work was published just fifty years ago. It was written in the belief that to obtain the general acceptance of the then newly born United States Pharmacopœia by the American profession a standard commentary was necessary. It attained a success which was quite unexpected, and during the half century that has elapsed has passed through fourteen large editions. The work as it now appears contains nearly two thousand closely printed pages. It is arranged alphabetically, and gives a concise account of almost every drug used in medicine. It deals not only with materia medica, pharmacy, and chemistry, but includes within its scope therapeutics, toxicology, and pharmacodynamics. That any one work, however large, can deal exhaustively with all these subjects cannot for a moment be supposed, but the authors have done their best to overcome the difficulties which naturally present themselves, and their efforts have been in the main successful. The most important articles and sections treating of the medical properties and uses of drugs have been entirely rewritten, and the fact of the work having been entrusted to Dr. H. C. Wood, the author of the well-known "Treatise on Therapeutics," is the best possible guarantee that no pains have been spared to bring the work up to date. Important changes have been made in pharmaceutical chemistry, whilst the pharmacy of the present edition is almost new. Illustrations of drugs have been added, and the accurate representations of microscopic sections of plants will be of service to students of structural characteristics. A novel feature is the attempt to indicate the pronunciation of officinal names by diacritical marks, the system in use in Worcester's Dictionary being that adopted. A complete list is given of analyses of American mineral springs, together with notes on the best known European waters. There is, in fact, so much that is fresh in the present volume that it must be regarded as a new work founded on the now extinct old United States Dispensatory. As an indication of the extent of ground covered, it may be mentioned that the index alone occupies seventy-seven closely printed pages, each of three columns, and it is said that over sixteen thousand titles have been indexed. That a work of this nature can be anything like complete, or that it can be free from mistakes, is not to be expected, but the errors and mis-statements are certainly few and far between. Its general accuracy is probably accounted for by the fact that it has progressed slowly, this edition having engrossed most of the time of all three editors for over three years. As a work of reference on the subjects with which it deals it is unrivalled.

The Laws concerning Public Health. Edited by W. R. SMITH, M.D., B.Sc., F.R.S.Edin., and H. SMITH, M.B. London: Sampson Low and Co.

THIS volume is professedly compiled in order to provide those who are preparing for examination in the public health department of State Medicine with a work which embodies the various Acts of Parliament and the Orders issued by the Privy Council Office and the Local Government Board, and which bear upon the subject of health both in England and in Scotland. The Public Health Act of 1875 and its amending Act of 1878, together with the parallel Acts in force in Scotland, the several Baths and Washhouses Acts, the Canal Boats Act, the Cemetery Clauses Act, the Contagious Diseases Acts, the Factory and Workshop Act, the Infant Life Protection Act, and a number of other statutes having reference to allied subjects, form a principal portion of the volume. Then follow the several orders, circulars, and model bye-laws which have been issued by the Local Government Board, a few of them being illustrated. It was the original intention of the editors to issue some exposition of the more important clauses of the several Acts, but the bulk which the volume has already assumed is alleged as a reason why this task has been deferred. Under these circumstances, the work is admittedly only a compilation; but even as such it is a useful one, as embodying all the statutory and official information which is usually required by sanitary officers or candidates for sanitary science certificates, together with a good index, which will materially add to its value for the purposes of reference. In the preface it is urged that officers of health and other sanitary officials should be required before appointment to give proof of their special acquaintance with the duties they seek to fulfil. Some such reform is certainly desirable, but it is not so clear that the time has arrived for giving effect to it. The needed examinations, even as regards officers of health, have only been established within recent years, and the number holding the special certificates granted are still too few to fill even the vacancies which occur. When the number of certified officers has increased sufficiently to give sanitary authorities a fair choice of skilled candidates, then, in all probability, some evidence of capacity for the special work to be undertaken will be required.

THE METROPOLITAN ASYLUMS BOARD.

AT the usual meeting of the Board on the 5th inst., letters were read from the Local Government Board authorising the managers to erect administrative buildings on the land at Long Reach, in connexion with the hospital ships for the isolation of patients with infectious diseases, the cost not to exceed £4000; and to erect a pier at the same place, at a cost not exceeding £4800; the sums to be borrowed and the payments extended over a number of years. Approval was given to the proposal to present Dr. Collie with a gratuity at the rate of £100 per annum, for his extra services as medical superintendent of the North-Western District Asylum, in addition to the duties of his position at Homerton, in connexion with the Eastern Fever Asylum. The subject of the proposed purchase of a site at Winchmore-hill, to be used for the isolation of convalescent fever cases from the asylums on the north side of London, was then discussed. There was considerable objection to the proposal, some managers objecting that it had been agreed that there should be another asylum for acute cases of fever in the East-end, and that if the proposed purchase were carried out this hospital would not be provided. Others objected on the score of expenditure, echoing the sentiments of the guardians of the City of London Union, who object to any further provision for infectious cases; and one member objected on the ground that a "sanitary millennium" was at hand, when there would be no more fever or small-pox, so that it was unnecessary to purchase more properties. The chairman read a letter from Dr. Bridges, expressing a favourable opinion of the site, and remarked that while the homes of the poor were in the condition reported in the daily press, the "sanitary millennium" looked for must be a long way off. Ultimately, amendments which were directed to make inquiries as to other sites were negatived, as also was the report itself.

THE LANCET.

LONDON: SATURDAY, JANUARY 12, 1884.

WHEN the Report of the Committee of the BOWER and KEATES case is presented to the profession, it will be a refreshing document. It will not occupy much space, nor apply to a movement extending over a lengthened period, but it will be the record of an outburst of professional feeling which for unanimity and enthusiasm has seldom been equalled. Without anticipating the details which the committee will give, we may be excused if we summarise the main facts of the case, and try to extract its chief lessons.

The medical calling is an arduous one. In its nature medical duty is sometimes so difficult that even error is generously construed and forgiven. However competent a medical man may feel—indeed the more competent he is, the more is he conscious of the limitations of his art and of his ability to do all that is demanded of him. He takes great pains to do his best; but he relies, and in the generality of cases safely relies, on the kindness of patients to appreciate his efforts, even where unsuccessful. The practice of medicine would be an intolerable pursuit if a spirit of ingratitude and disparagement were to take possession of patients or their friends, or even if they showed an inability to make allowances for reasonable imperfections of art or judgment. Nothing is more certain than that the trusting and grateful patient in the long run is the one who gains the greatest advantage. Not only does his trust further the surgical and medical means used, but it puts his adviser into the best frame of mind for doing and trying to do his best. The relationship becomes more than a mere professional one, in which both parties co-operate to one end, and in the attainment of which both find their pleasure and their advantage. Public opinion would sanction this view of the relationship of medical men to their clients, and would refuse to sanction one which regarded medical men as open to criticism and censure on the motion of any ungrateful or litigious person, who failed to appreciate medical services. Still less would public opinion approve such treatment of medical men who in the judgment of their brethren had done well, as in the case of Messrs. BOWER and KEATES. Remembering the fact that they were acting in urgent circumstances—acting for the relief of a choking child—it must be admitted that they did their duty, and did it well. The subscription list and the names to the memorial testify already what is the judgment of the profession on this point. That they should be blamed for doing their duty constitutes, as the magistrate said, a veritable "persecution," accentuated in this case by the unfortunate and ill-advised action of the Public Prosecutor. Next to the remarkable movement of the profession in the case, as a source of satisfaction to Messrs. BOWER and KEATES, must be the local expression in their neighbourhood of public opinion.

Reverting to the chief facts of the professional movement, which in ten or twelve days ended in the subscription of fifteen or sixteen hundred pounds, the following points strike us: the promptness and generosity of the donors; the complete unanimity of the profession; the ready response to the natural leaders of the profession. As a matter of history, the primary impulse to this movement came from two members of the College of Physicians—its honoured President, Sir WM. JENNER, and Dr. MOXON. The President felt that the College as a college had no funds out of which to help Messrs. BOWER and KEATES. But he remembered that there is one source of power and sympathy greater than the corporations—the profession itself. He rightly gauged, too, another factor in this successful movement, which it would be alike ungenerous and absurd to ignore—the willingness of other representative members of the profession to co-operate with himself and with the profession in any course for vindicating the honour of medical men. It would be invidious to single out names where all have done so well. The result must be very gratifying to those who led the way. It must beget the conviction that the profession only needs to be well led to act with union and with effect, and that it would be no great misfortune if the "persecution" of an occasional martyr or two like Messrs. BOWER and KEATES gave an opportunity for showing the solidarity and strength of the medical body. As to our own part in this matter, it is not for us to speak. The credit due to us is only that of estimating rightly the too little recognised forces of professional sympathy and interest. Hitherto there has been nothing in the organisation of our profession to connect its members one with another, or with its principal corporations. We must hope for better days in this respect. Meantime the movement on which we comment shows that the profession is one, and would act with infinitely more effect if it could be more consolidated.

The final meetings of the Committee have yet to be held, and we do not anticipate the decisions. The only serious question that could arise would be as to the disposal of the surplus over that needed for defraying the expenses of Messrs. BOWER and KEATES. On this point we will only say that it would not be advisable to establish, as some of our correspondents suggest, a permanent Defence Fund. To do so would be to assume that there is a probability of more such "persecutions." We cannot believe this. The great lesson to be learnt out of this case is the possibility of even a Public Prosecutor putting himself into a most unreasonable position towards medical men doing their best in difficult circumstances. And the chief object, next to that of practical sympathy with Messrs. BOWER and KEATES, is to convince the Government that some extra precautions are necessary to prevent the Public Prosecutor repeating such an error. We may safely leave the means and arguments for convincing the Government to the Royal Colleges and their respective Presidents, Sir WILLIAM JENNER and Mr. MARSHALL, backed perhaps by the sister corporations of the United Kingdom.

IN a long letter published in THE LANCET last week, Sir ANDREW CLARK traversed much of our article on the recent discussion on "Catheter Fever," introduced by himself at the Medical Society. As this letter is a concise

statement of some of the views contained in his original paper, which we still hold to be errors, we are grateful for it, as not the least valuable of the contributions to the discussion. We will very briefly deal with Sir ANDREW CLARK'S criticism, and will purposely refrain from introducing any new matter into the discussion, contenting ourselves for the present with attempting to meet Sir ANDREW CLARK on his own ground and with his own weapons. It will, therefore, be most convenient to deal with the paragraphs of his letter *seriatim*.

1. Sir ANDREW CLARK complains of our criticism of his review of the literature of the subject as "incomplete." We might merely point out that he admits this in his letter, but adds what he believes to be a sufficient justification of it. On turning, however, to the address to the Medical Society, we find these words:—"It will be necessary, in order to obtain a clear and comprehensive understanding of the underlying subject, to *discover the origin* and to follow the historical development of those ideas which have shaped the theories of surgeons and determined their lines of practice." We, therefore, do not consider that we were hypercritical in pointing out that the review of the literature did not go back to the "origin" of the views held by surgeons; particularly as he had stated that such a course was "necessary."

2. Sir ANDREW CLARK complains that we misrepresented him when we wrote that he spoke of the statements of VELPEAU as of equal value with those of MARCUS BECK, and was thus misleading. A careful reperusal of the original address, however, appears to afford no ground for a reversal of our opinion. In his address we find more space devoted to VELPEAU'S views than to those of any one else. He is spoken of as "the juster and greater VELPEAU" (in comparison with CIVIALE), and as "the source whence almost all subsequent writers have derived their inspiration, and sometimes their ideas." And in Sir ANDREW CLARK'S remarkable reply to Mr. BERKELEY HILL, we find that the first statement by which he attempted to overturn Mr. HILL'S assertion based upon the records of University College Hospital, where Mr. BECK'S observations were made, is this: "Let me tell him that VELPEAU gives several cases in which no lesion has been found in this sort of fever that I have been describing, and his post-mortems were made in the public theatre, not by himself." The failure of VELPEAU to note disease of the kidney is no scientific proof that none really existed. To establish a negative is always a serious and difficult task, and it is simply impossible for Sir ANDREW CLARK to use VELPEAU'S authority on such a subject for such a purpose.

3. We are taken to task for calling three of Sir ANDREW CLARK'S propositions "vague." They are as follows:—

"*First, that about middle life, in men perfectly healthy, or with no discoverable evidence of disease, except perhaps, and even that not always, a low density of urine, the commencement of the habitual use of the catheter is sometimes followed by fever of the remittent type, which often ends in death, and that for the fatal issue in such cases no adequate structural explanation can be found.*" To place together in one group the "perfectly healthy" and those passing urine "of a low density"—the only evidence often obtainable of chronic interstitial nephritis—is to confuse the healthy with the diseased. And when it is borne in mind that the patients referred to are those requiring "the habitual use of the catheter," owing to chronic disease of the prostate and bladder, which induces this interstitial change in the kidney, the recognition of which is admittedly very difficult in many cases, the insufficiency of this statement becomes still more apparent. What, too, is the *precise* meaning of an "adequate structural explanation" for "the fatal issue"? We hardly think that "vague" is an unjust term to apply to such a proposition.

"*Thirdly, that ..... the fact that this fever may arise in what seems to be good health, and, without the mediation of any visible structural lesion, issue in death, is not well known—or, at least, well known only to a few.*" To speak of a patient as seeming to be in good health is, we allege, "vague," for the significance of the phrase varies with the ability of the observer to detect evidence of disease.

"*Fourthly, that this fever is neither distinctly uræmic, nor distinctly pyæmic; that, although having some of the characters of each, it has all the necessary characters of neither; that probably it begins in the nervous system; that probably the disturbance of the nervous system reacts in the first place upon the general metabolism of the body, and in the second instance upon the secretory organs, beginning with the kidney; that the effect on the kidney may consist either in structural alterations in the kidney, invisible by the aid of our finest instruments of research, or (as seems to me much more probable) in alteration of the constitution of the blood, that dynamic condition of its constituents in the renal vessels essential to the elaborative action of the excretory cells thereof; and, lastly, that the concurrence of these conditions may be, and often is, enforced by septic reabsorption into the blood.*" A definition of a form of fever which consists (*a*) in the statement that it is *not distinctly* uræmic nor pyæmic; (*b*) that it "*probably*" has a particular origin, and again "*probably*" reacts upon the body in two ways; (*c*) that its effects "*may*" be one of two; and (*d*) that it "*may*" be enforced by a totally distinct condition, may not unfairly be called "vague." For may not *all* fever be said "probably" to begin in the nervous system by a disturbance which reacts upon the general metabolism of the body and upon the secretory organs? In reference to Sir ANDREW CLARK'S chief contention, we need only to refer to Mr. BERKELEY HILL'S letter, published in THE LANCET last week, where Sir ANDREW'S position is refuted in terms too plain to be misunderstood, and upon which we cannot improve. We must dissent from the strong contrast Sir ANDREW CLARK draws between hospital and private cases as regards this question. Such a contrast may be drawn in many cases, but not in this; and we have only to refer to Sir HENRY THOMPSON'S statement, that his experience in private practice had agreed with his hospital cases, to obtain all the support we need for our assertion. It is useless to refer to the large number of cases in private practice in which no autopsy is made; by that very circumstance they must be excluded entirely from the argument.

Other minor points in Sir ANDREW CLARK'S letter we must pass over. We have with regret felt it necessary to reply to it in a form of criticism we would rather not have introduced into a scientific discussion, but in this matter our

hand has been forced. Sir ANDREW CLARK has no doubt been misunderstood, but this we believe has been because he has not kept sufficiently clearly before his mind the varieties of the constitutional disturbances produced by catheterism, and has then associated the pathological conditions of one form of "catheter fever" with those only found accompanying another. Finally, we are glad to have Sir ANDREW CLARK'S assurance that he still has the highest regard for British surgeons and British surgery, for in view of his statements that he failed to extract from surgical acquaintances information on this subject, and that the facts in relation to it were "not well known" and had "no adequate place in English surgical teaching of this time," the fear was not unreasonable.

IT says little for our national morality that in order to keep up the dignity and discharge the obligations of the State it is found necessary or expedient to resort to such a questionable measure as the levying an impost on patent medicines. The commodities in question are in the majority of instances nothing else than secret remedies, and secret in more senses than one; for whilst the buyer is ignorant of the nature and composition of these nostrums, the vendor frequently knows nothing or next to nothing of their physiological and therapeutic properties; and even if he did, the mischief would be almost as great, seeing that he has no control, and wishes for none, over the indiscriminate dissemination of the articles of his speculation. The only matter of concern to the proprietor of a so-called "specific" is that he may grow rich at the expense of the public, upon whose ignorance he can rely and of whose credulity he can reap the advantage. He takes care to discount the little knowledge they possess by informing them that his deadly "powder" contains no mercury and that his far-famed "syrup" is free from narcotics; and all this he does with the greatest effrontery, notwithstanding that skilled analyses openly give him the lie. Such a man is protected by the law, and his nefarious trade is sanctioned, and, as it may seem to the ignorant, with the Government stamp of approval.

Our statesmen cry out against the opium traffic in China, and bewail the misery and sickness caused by alcohol at home, whilst they look complacently upon an enterprise rife with danger to the health of the community—an enterprise which sacrifices yearly hundreds of lives and undermines thousands of constitutions. Look at the affair from whatever standpoint we may, we fail to find a single redeeming feature, unless, forsooth, the filling of the coffers of the nation is to be regarded as an extenuation of a so-called necessary evil.

These patent medicines are in many cases well known by the profession to be positively harmful, their active principles being of such a nature that few practitioners employ them in the treatment of children's diseases; and yet a large number of them are concocted ostensibly for the benefit of this class of suffering humanity. Scarcely a week passes but a coroner's inquest elicits the fact that some mother, actuated no doubt by the best of motives, has given her child this or that vaunted remedy, and with a result but too well known. We might appeal to recent events in support of our contention that lives are repeatedly being cut short through the administration of poisons masked by the law of patents. Any amount of expense is incurred and truth sacrificed in order to entrap the unwary and victimise the foolish. The secret remedy receives a name that inspires wonder or suggests a secret charm. To this is added a category of the ailments alleged to be subject to the spell. Thus, curiosity blinded by ignorance gives place to faith, faith to adoption, and so the miserable artifice succeeds. In France the law compels the proprietor of a patent remedy to set forth the nature of the ingredients on the label, and in this way the public are in a great measure protected. Here in England, if a chemist ventures in open honesty to state the composition of the medicines he sells, he is in danger of being accused of contravening the patents law. The whole system is rotten to the core and ought to be abolished at once.

Her Majesty's Ministers ought to stamp out at once such a crying abuse, immoral in principle and fatal in practice. Let the Prime Minister learn a lesson from his favourite pastime, and lay his axe to the root of this tree of evil.

THE tone of the circular recently addressed by the Local Government Board to the Vestries and District Boards with regard to the insanitary condition of the dwellings of the poor in the various parishes of the metropolis is excellent. It plainly places before these Boards the fact that they are mainly responsible for the present state of things; for having already "large powers vested in them for dealing with insanitary dwellings of the labouring classes" they are now called upon to make a "vigorous exercise of the powers with which they are entrusted," and which up to the present time they have so obviously neglected. The circular will no doubt act as a cold douche on the perfervid oratory of the vestry-room. Since the "Bitter Cry" was first raised none have been more forward in denouncing the landlords as "vampires and bloodsuckers," or in charging the medical officers of health with negligence in the performance of the duties, than certain vestries, forgetful of the fact that they alone had power to put the existing Acts in force, which in themselves are sufficient to deal with the most pressing of the evils. The charge that has been raised in some quarters against the medical officers of health of failing to represent the matters in their reports is most unjust, as a reference to the pages of THE LANCET will abundantly show. Almost every week nearly two of our columns are devoted to abstracts of the reports of the medical officers of health throughout the kingdom, and in these reference is constantly made to the unsatisfactory condition of the houses of the poorer class. But even if this were not the case it would be a sufficient answer to say that the duties of the medical officer are eminently of a practical character; he has to deal at once with the dangers that arise from insanitary conditions, to secure effectual isolation in the case of the outbreak of infectious disease, to disinfect houses in which contagious disease has made its appearance, to secure the removal of dangerous nuisances, and many like duties of an urgent nature. Having once drawn attention to the insanitary conditions existing in his district, his duty is at an end. It is then for the vestry to act on his recommendations. Do they do so? To this question the present circular of the Local Government Board is the best reply.

Again, not only are the recommendations of the medical officer of health often overlooked, but his advice on

most important matters is unsought. Only the other day we placed on record a most remarkable instance of this shortsighted policy, inasmuch as the City Commissioners had accepted and signed a tender for the rebuilding of certain houses in Petticoat-square without submitting the plans to their medical officer of health; the height of the rooms being fixed at the inadequate standard of eight feet! How, indeed, are improvements to be effected in the face of such neglect of duty, and ignorance of the first principles of sanitary science? The Local Government Board may insist on improvements being done, but who is to see that they are efficiently carried out if the vestries are permitted to act independently of the advice of their medical officers of health—men eminently fitted by their special training to speak authoritatively and advise correctly in such matters?

That the day for shifting or evading responsibility has passed for the vestries we are assured. Public opinion has been fully roused on this question, and the public conscience is keenly sensitive to the disgrace that must be incurred if the wholesome provisions of the existing Sanitary Acts are not carried out. Already the circular of the Local Government Board seems to have had an awakening effect, and the vestry of Newington is the first in the field in presenting a report made by its medical officer of health upon the subject of the dwellings of the poor. It is to be hoped that other vestries in the metropolis will speedily follow this example. They may have neglected their duties in the past, but if they at once ascertain, through their medical officers of health, the actual condition of their respective districts, and then set about the necessary improvements heartily, a very short time will suffice to redeem their credit. But to do this they must shake off their traditional apathy, and allow no question of self-interest to corrupt their judgment.

A REPORT on the Epidemic of Cholera in Egypt in 1883 has recently been presented to the Minister of Commerce by Dr. CHAUMERY of Alexandria. A large portion of the Report is taken up with a consideration of the etiology of the outbreak, and especially with a refutation of the views that the disease had a local origin in connexion with the admittedly deplorable hygienic condition of Damietta and other towns in the Delta, or that it was the outcome of cases of ill-defined cholera which had from time to time been recurring in the country. The views which had been expressed by Dr. DUTRIEUX BEY as to the local origin of the disease are at once swept away by the statement that they were practically written to order on the instruction of CHERIF PACHA, President of the Council of Ministers. The well-known theory as to the importation of the disease from India is the one which Dr. CHAUMERY favours. In order to enforce it he enters into considerable detail as to the frequent communications existing between the stokers and firemen of Red Sea steamers and Damietta, by way of Lake Menzaleh; and as regards the individual fireman of the steamship *Timor*, MOHAMMED HALIFA, of whom so much has been heard, he asserts that some of the statements which have been made in order to show that this man could not have been the means by which the infection was conveyed to Damietta are quite untrustworthy. Thus, it has been asserted that the man was expelled from Port Said by order of the Governor on June 23rd, and that it was not until then, when the cholera had already appeared in Damietta, that he visited that town. But Dr. CHAUMERY quotes a communication tending to show that the man had been at Damietta before this occurrence, that his stay there coincided with the fair and the outbreak of cholera, and that it was only on June 21st that he left for Port Said, from which place he was subsequently expelled for some offence. Then, again, Dr. CHAUMERY brings forward some evidence to show that merchants and others from India were present at the Damietta fair, which lasted from June 10th to June 20th, and he further goes on to show, by reference to statistics, that cholera had been increasing at Calcutta, Sumatra, Bombay, and other places, previous to the outbreak, but that owing to a diminution in the number of deaths in Bombay, the Council of Alexandria, on June 5th, removed the restrictions imposed on vessels coming from that place, the Damietta outbreak following on this step. Some of Dr. CHAUMERY'S inferences are, we believe, groundless, but, to do him justice, it must be stated that the several points referred to are brought forward and discussed not so much with a view of alleging that the infection is proved to have been conveyed as the result of any one of them, but in order to show that since the disease occurred after a fair which was visited by persons from India, where cholera was then prevalent, and through whom, either by means of their clothing or by means of an attack of cholera'c diarrhœa, the poison could so easily have been conveyed, it is more than probable that the infection was an imported one. Upon those who maintain that the epidemic was the result either of spontaneous generation or of the recrudescence of a local poison lies, according to Dr. CHAUMERY, the burden of proving that the more ordinary channel of infection by importation along the lines of human traffic did not come into operation; and we may fairly anticipate that this view will be fully discussed in the forthcoming official report by the British Commissioner. Towards the end of the Report a statistical account is given of the incidence of the disease upon the various towns and villages, in so far as material for such statistics was available. From this it would appear that 8763 deaths were recorded in the larger towns, 19,723 in the provinces, and 130 amongst the English troops, the total deaths amounting to 28,616.

BABY FARMING, like the evil of illegitimacy from which it springs, has in our time been pruned by the hand of popular opinion within the limits of decent unobtrusiveness. Of late years it has not shown itself in the same proportions as formerly, nor with the same immodest openness. It has become shrunk outwardly, law-bitten; but there is good reason to believe that, after all, it has merely changed its form rather than lost its vigour. Facts occasionally come to light in courts of justice, and moral certainties not a few present themselves to the discriminating practitioner of medicine, which go to prove that it still lives a suppressed but real existence, under conditions in which the selfish remorse of a defaulting parent or the drunken need of some social straggler renders its adoption on a small scale convenient to the one or profitable to the other. A case in

point was the subject of a coroner's inquest at Clerkenwell a few days ago.

WILLIAM GOSNEY, aged two months, the son of a mother sixteen years old, had been placed soon after birth in the charge of an elderly widow, having no regular means of livelihood, inhabiting a small and very foul back room, warmed by a fire of shavings, for which she paid 3*s.* 6*d.* per week as rent; a person, it would seem, commended to the primary guardians of the infant by her filthy penury alone. The sum allowed her for expenses was 7*s.* 6*d.* per week. None of the members of the mother's family ever visited the unfortunate child; they were too respectable to do so, and it may safely be concluded that those interested on the father's side were animated by the same feeling. It appears to have been simply given away to sink if possible, to swim if sinking were not possible, with no sign of friend or relative about it but the formal shilling a day, which measured the kindness of a mother's care and formed the total regular income of the household in the back room. It lived a pining life for a short time, being fed, according to the evidence tendered, on milk, farinaceous food, and sometimes "even a small quantity of brandy." It passed through the ordeal of consumption of the bowels, a kind of distemper of neglect familiar to medical men who visit among the poor, and which may usually be most accurately described as the effect of improper feeding amid unhealthy surroundings. A few days ago it was taken to a neighbouring practitioner, and we are not surprised to learn that he found that it was dead. The post-mortem examination showed the body to be much emaciated, and affected with tuberculous disease. This case is in several respects an instructive one. It reminds us to what a large extent the public, and not alone the poor section of it either, requires instruction as to what diet an infant recently born should have if it is denied the mother's breast. Bread, biscuit, arrowroot, meat even, are often given to children a few weeks old, whereas the plain suggestion of nature indicates that for nearly a year their organs are unequal to any stronger aliment than the thin human milk, or, as a rational substitute for it, the milk of a domestic animal assimilated to the human standard—for example, good and pure cow's milk, diluted with twice its bulk of pure water, and given without stint. A child of this age fed on flour foods, though it eats with eagerness, and seems satisfied, is starving on material which it cannot digest. But greater than the evil of erroneous composition of food is the evil of uncleanliness. The former is often largely qualified by the predominance of suitable among the unsuitable ingredients; the latter admits of no remedy but total removal. It is impossible to see how the caretaker of the child GOSNEY can have found means to supply even the faulty fare which she professed to give; but if we grant, for the sake of argument, that she did so, and consent to palliate with the flattering term of ignorance the fact that such matters as hard biscuit and tea-leaves were found in the stomach, we cannot overlook the abominable and quite inexcusable filth, and the absence of due warmth and of every comfort, in which the poor child was reared, and which, beyond a doubt, were largely influential in producing its death. We are forced to this conclusion when we consider the vigilant discretion and the constant and scrupulous cleanliness now generally allowed to be necessary for success in bringing up children by hand, the want of all these in the present instance, the unjust and selfish terror for their reputation evinced by the parental relatives, and their scanty and careless charity. Nor is this an offence of one class only, but it is sufficiently clear that with the rich as with the poor natural children who are said to be put out to nurse are often really put out to die. It is also a significant fact, and one well known to practitioners, that an unduly large proportion, we might almost say a majority, of infants brought up by other women than their mothers on account of their inconvenient illegitimacy suffer at a very early age from malnutrition, and before long die from the effects of that condition, and from no other cause. Their living is not desired by either parent, their *quasi* foster-mothers receive no tempting and superfluous board for their maintenance, no one has anything to gain from their existence but themselves, and unless there be on one side or the other some moral principle stronger than mere expediency, their chance of survival is small indeed.

We confirm in the strongest manner the opinion spontaneously and independently expressed by Dr. DAY in his medical evidence, and by Dr. DANFORD THOMAS, and promptly taken up by the jury, that the provisions of the Infant Life Protection Act should be amended in certain particulars. We desire to see the system of registration and supervision which now applies to all women who undertake the care of more than one nurse-child and is available until their charges have reached the age of twelve months, so extended as to cover the case of any and every child which is placed for a profit under the management of persons other than its own parents. Some restriction as to age is doubtless necessary, but the limit were better fixed not earlier than the third year of life.

Annotations.

"Ne quid nimis."

A GENERAL MEDICAL HOSPITAL FOR THE INSANE.

A PROPOSAL is under consideration in a philanthropic quarter for the establishment in London—with a branch establishment for convalescents on the Continent—of a general medical hospital for the insane and persons afflicted with what are supposed to be "incurable" nervous diseases. The scheme is to place this projected institution on the footing of an ordinary hospital, with a staff of honorary physicians and surgeons who are not specialists, but who will be able to bring to the treatment of cases of mental derangement that general acquaintance with physiology, pathology, and therapy which—if it be true that mind is simply brain-function, and that mental disorder is only, and always, a symptom of physical disorder or organic disease—ought to be adequate for the investigation, and if possible the remedy, of mind-troubles. The institution will not be conducted as an asylum, but as a hospital; and, if necessary, application will be made to Parliament for special powers to carry it on without its being subjected to the interference of the Commissioners in Lunacy, although it will, of course, be at all times, and to the fullest extent, open to their inspection and amenable to their authority, so far as the protection and comfort of the patients who may be *certifiable* are concerned. The idea being a new one, and its main object being to bring the treatment of mental disease

within the direct control of the general body of the profession, the hospital will be in a special way open to the observation of every registered practitioner; and while a majority of the beds will be set apart for the reception of patients who cannot pay, there will be wards in which cases will be received at all times on probation at the recommendation of practitioners, and the rules applicable to these wards will be so framed as to secure to the medical man placing a patient in the hospital a right to continue his attendance on the case, and treat it in the hospital with the advice and assistance of the honorary staff and the resident medical officers. As the purpose of the founders is to promote the study of mental disease by the profession as a whole, and to offer special facilities for the trial of new methods of treatment and the discovery of new remedies, provision will be made for the carrying out of this intention to the full. The opinion and co-operation of the profession are now invited, with a view to secure the most perfect realisation of these objects from the outset.

THE WEATHER AND THE PUBLIC HEALTH IN 1883.

IN view of the satisfactory condition of the public health in 1883, judged by the national death-rate, which so far as is at present known did not exceed the low rate of 19·5 per 1000, it is interesting to consider one or two of the principal meteorological features of the year derived from daily observations at the Royal Observatory, Greenwich. The mean temperature of the year was 49·3°, against 48·9° and 49·7° in 1881 and 1882, and was 0·8° above the average mean in 100 years. Compared with the same mean standard, February was exceptionally mild, and March as exceptionally bleak and cold. The mean temperature of August showed an excess. With these exceptions the monthly mean temperatures differed but slightly from the averages. The only marked effects produced by the temperature was a considerable temporary increase of mortality due to the cold March, which more than balanced the favourable effect of the mild February; and a sudden increase of infantile diarrhœa fatality, due to the excess of temperature in August. The temperature of each of the last four months of the year being slightly above the respective average, undoubtedly conduced to the low mortality of the last quarter of the year. Rain was measured at Greenwich, on 173 days in 1883, to the aggregate amount of 21·9 in., showing a deficiency of 3·4 in., compared with the average amount in sixty-one years. The deficiency of rainfall was most marked in March, August, and December; whereas the months showing the largest excess were February and September. The amount of bright sunshine recorded in the year was 1241 hours, differing but slightly from the amount in each of the five preceding years, excepting only 1879, when the amount fell to 983 hours. The sunshine exceeded the average in August, but showed a marked deficiency in December. The weather in 1883 was, on the whole, fairly favourable to health, being free from severe frost in winter and from excessive summer heat. It is, however, mainly to other causes that we must look for an explanation of the low death-rate of the year.

NERVOUS DISEASES.

EVERY year brings home facts which serve to remind us that we have not yet reached finality, even in those departments where progress has been so great that one might question whether human wit could possibly devise further knowledge. Recently Professor Westphal has recorded two cases of disease of the nervous system which in their clinical aspect presented an assemblage of symptoms closely resembling what we are accustomed to associate with the anatomical diagnosis known as disseminated sclerosis. The first of these cases occurred in a man aged eighteen, afflicted with motor paresis of the upper and lower limbs, so that walking became almost impossible, as the patient often fell, especially in the dark. For three weeks double vision had been present. The sensation was blunted in the soles of the feet; the lower limbs were the seat of painful twitchings. Six years after the onset of the malady the intellectual faculties began to suffer. The paralysis increased in the lower limbs, which became rigid. And the volitional movements of the head as well as those of the limbs were accompanied with a tremor comparable with that which sets in when volitional movements are attempted in disseminated sclerosis. All the volitional movements were performed with extreme slowness. Speech became embarrassed and the voice nasal and monotonous, but the words were not scanned as in cases of insular sclerosis. The macroscopical and microscopical examination failed to reveal any alterations of the nervous centres capable of explaining the clinical signs. The same may be said of the other case, which related to a man, aged thirty-six, who suffered from a remarkable group of nervous symptoms after typhoid fever. The interest of these facts lies on the surface.

SERIOUS EPIDEMIC OF TRICHINOSIS.

THE epidemic of trichinosis referred to in our last issue, and which occurred at and in the neighbourhood of Emersleben, near Halberstadt, is one of the most severe ever recorded. On September 11th last a pig was killed by a butcher named Behrens at Emersleben, and, according to law, its flesh should have been examined by the district inspector before being used as human food. On Sept. 12th the butcher gave a slice of the meat to two neighbours, who, according to local custom, chopped it up into a fine mass, spread it on bread, and ate it raw. They both fell ill, and subsequently died. On the same day the butcher himself mixed the remainder of the meat with that of another animal, and sold the minced compound to his Emersleben customers every day from Sept. 13th to the 19th, and all but five of them consumed it in the manner already indicated. As the result, 250 persons were taken ill, and over 40 died. The same mixture was also sold to 42 customers at Deesdorf, 42 being seized with illness and 9 dying. In one family alone, amongst the total attacked there were 4 deaths. Other isolated sales of the meat took place, and later on the compound was again mixed with additional fresh pork and sold to customers, of whom 80 sickened, but without fatal result. At first the cause of the epidemic remained a mystery, and it was not until at least 150 persons had sickened that its true origin was discovered. The details of the outbreak have been published in Germany, in Paris, and elsewhere, the French account being prepared, as the result of local inquiry, and with great care, by Dr. Brouardel. According to his investigations, it would appear that the trichinæ contained in the meat mixture appeared most potent for harm when consumed within about twenty-four hours of the death of the animal, 33 per cent. of those who partook of it within that period dying in consequence; also that the activity of the meat for mischief gradually decreased day by day after the first period of twenty-four hours, until, when the sixth day was reached, sickness, without a single death, alone supervened. Sex does not appear to have influenced the results, but according to the belief of the medical men in the district, children resisted the influence much better than adults, whereas old people suffered most. Whether at Emersleben the meat was really examined before it was consumed, can hardly be ascertained, but it is certain that both the butcher and the inspector partook of some of it, for they both suffered seriously in consequence. Trichinæ were, however, discovered in the minced material at a later stage.

There can be no question that the habit of eating the flesh of pigs in a raw state constitutes a great danger to the population of Germany, and few outbreaks could bring this point home more decidedly than the one now under discussion. It has already been said that five persons who had consumed the meat at Emersleben did not eat it raw. These five persons, together with a servant, form the household of the mayor, and although the meat was used in his family it was made up into sausages which were boiled before being served up. The result was that the family escaped. The servant, however, who partook of the same meal fell ill, and she admitted that before the sausages were cooked she had spread some of the chopped meat on to some bread and butter, and had eaten it as a sandwich. This habit of eating raw flesh is universal in the district, and the only safeguard afforded to the people is the appointment of such inspectors as a barber at Emersleben and a peasant at Deesdorf. To such men are entrusted microscopic examinations, and this at a fee at times not amounting to more than a few pence.

THE PREVENTION OF LEAD-POISONING.

A WRITER who signs himself "Observer" has recently addressed a pamphlet to the Home Secretary on the subject of lead-poisoning, in which he endeavours to show that the proposed legislation cannot afford a true remedy, and in which he points out that a new process for the manufacture of white lead can be, and is already to some extent, adopted, which dispenses altogether with the labour of women, who have been the chief sufferers under the old system. And even as regards the few men who are employed, they are never exposed to the white lead dust, and their hands are never so much as brought into contact with it. The process is stated to be one invented by Professor E. V. Gardner, and to be in action at Deptford. It secures the formation of a white lead of the purest colour and best quality in closed chambers, the lead when formed resting on shelves from which it can be emptied, without causing any dust, into a combination of machinery which is closed in, and from which it issues forth as white paint ground ready for the market, or, if required, in the form of a dry powder. The processes of washing and stoving, together with the dangerous operation of "white bed," are thus done away with. We should be ready to welcome any process by which the unfortunate effects which result in so called lead-poisoning could be obviated. This process is alleged to have the additional advantage over the old one of being both rapid and economical.

HEALTH IMPROVEMENT IN BRISTOL.

MAKING due allowance for the sensational colouring of much that is now being written on the "outcast poor" of our large towns, there is more than enough reality in the horrors of the rookeries that survive the recent boasted sanitary revival to encourage the hope that real benefit may result from the fierce light that is being let in upon them. Special commissioners are looking up, and writing plainly of, the plague-spots of most of our large towns; and which of them can boast that they have none? The *Bristol Mercury* has been publishing a series of articles on the "Homes of the Bristol Poor," which can scarcely fail to be useful in the direction of infusing new vigour into the sanitary authority of that city. Judged by its death-rate Bristol holds a high place among the largest English towns as regards health and sanitary condition. Few towns can point to so steady a decline in their death-rates as that which has been recorded in Bristol. In 1875, when a severe epidemic of scarlet fever prevailed, the death-rate in the city was equal to 27·4 per 1000, since which the annual rate has steadily declined to 19·6 in 1881 and 19·2 in 1882. The local commissioner states that the normal death-rate in the city thirty years ago was 28 per 1000. The zymotic death-rate has fallen in Bristol, as in other towns; it was equal to 4·9 in the three years 1870–2 (the earliest for which the Registrar-General published this information), while in the last three years, 1880–82, this rate fell to 2·6. Scarlet fever was epidemic in 1870, 1874, and 1879, but the death-rate from the disease in these three years was 4·2, 2·4, and 1·2 per 1000 respectively, affording the strongest evidence of sanitary condition less and less favourable to scarlet fever fatality. "Fever" fatality, mainly due to enteric fever, also shows a marked decline; the annual rate from this cause, which averaged 0·58 per 1000 in the four years 1870–73, did not exceed 0·23 in the four years 1879–82. So with one more test of sanitary condition. The rate of infant mortality, measured by the proportion of deaths under one year of age to births, which averaged 167 per 1000 in the four years 1870–73, declined to 140 in the four years 1879–82. Thus at all points we find statistical evidence of sanitary progress; and if the rate of progress has not been quite so great in Bristol as in some other towns, this may be attributed to the fact that the excess of mortality ten or fifteen years ago was not so great in Bristol as in many other towns. If, however, Bristol is to keep its place in the march of sanitary progress, the authorities of the city must not adopt the "rest and be thankful" doctrine, but must set about the removal of the weak places in its sanitary condition which the local commissioner is now pointing out, and which in epidemic seasons cannot fail to be a source of danger to the health of the city.

REPORT OF THE PRISON COMMISSIONERS.

THE Report of the Prison Commissioners for the year 1883, now published, is of such a satisfactory character that the Home Secretary has addressed a jubilant letter of congratulation to the Commissioners on the subject. With regard to one portion in particular of this letter we desire to express our satisfaction, and that is in the commendation of the medical officers, which, we believe, is the first official expression of approval these devoted servants of the public have ever received. We wish, however, we could record that they were to receive a more substantial acknowledgment for the important services rendered by them, in making the New Prisons Acts workable, than a phrase from Sir William Harcourt. There can be little doubt that the outcry against the working of the new Acts has been productive of effect, for the year 1883 was remarkably free from those inquests on deaths in prison which caused such a painful sensation in the two preceding years. This fact, together with the decrease in the annual death-rate of the prisons, shows that "most constant vigilance and rigorous precautions against error in the conduct of a great business, into which abuses might easily be allowed to creep," has been exercised. But it may be asked why, if this improvement is possible in 1883, it was not earlier carried into effect? May it not be that "the unfounded attacks of irresponsible persons," of whom Sir William Harcourt bitterly complains, have been the instruments, after all, in effecting the present improvement. Throughout, the cry of the reformers was, Give the medical officers greater power and responsibility, and these scandals will cease. The compliment to the medical officers conveyed in the Secretary of State's letter to the Commissioners conveys to us the idea that the hint has been taken. But we fear if the "irresponsible persons" had not stirred, matters would have been permitted to go on in their usual groove, and the medical officers have been still hampered by officialism. According to the Commissioners' own showing, the improvements effected this year

are entirely due to the zeal and efficiency of the medical officers attached to our prisons. By rendering the New Prisons Act workable they save the country annually a large sum of money. It is but justice that these officers should receive a substantial reward for the additional labour and anxiety thrown upon them in preventing the disastrous experiences of the past. Increased responsibility should fitly be followed by increased remuneration.

VIRCHOW ON THE GOUTY KIDNEY.

AN interesting address was given to the Berlin Medical Society, at a recent meeting, by Professor Virchow (*Berl. Klin. Wochenschr.*, No. 1, 1884), upon the relations of gout and renal disease. He first of all dispelled the erroneous idea that gravel and calculus have anything to do with gout. He then showed that gouty—i.e., uratic—deposits often occur without the patient ever having been the subject of a definite acute paroxysmal attack of the disease; and he pointed out the distinctions between the chronic latent form and arthritis deformans, having only once met with the uratic deposit combined with the peculiar joint condition of the latter affection. The gouty condition depends on imperfect nitrogenous metabolism, and may either be due to the excessive ingestion of nitrogenous food, or to a special disposition to defective elimination of nitrogenous waste. The "gouty kidney" is characterised by a deposit of urate of soda within the tubules of the medullary portion; but the degree of the renal affection bears no constant relation to the amount of tophaceous deposit about the joints. Indeed, there may be no gouty arthritis present at all, and yet the kidneys be affected. It may be that there is an essential difference in these two classes of cases, but as yet no other condition than that known as the "gouty" and marked by an excess of urate of soda in the blood is known to produce either the articular or the renal deposit. The kidney is also the seat of chronic interstitial nephritis—puckered and wasted—the wasting involving medulla as well as cortex. Virchow has never seen an *acute* nephritis which from the presence of the uratic deposit could be referred to gout. He points out that the chronic inflammatory change starts in the cortex, at a distance, that is, from the seat of the urates in the medullary tubes; just as in the joint, the urates occur in the cartilages and ligaments, whilst the synovial membrane is the seat of inflammation. From this he argues that it is not the presence of the crystals, but the exudation of the fluid containing the uric acid in solution that acts as the irritant; the surfaces in contact with the secretion that are inflamed, and not so much those in which the salt is finally deposited. And here he adduces as evidence an illness from which he suffered towards the close of 1882. He had never had any attack of acute gout, but from time to time he suffered from slightly reddened and painful swelling of the fingers, interfering with movement. In the course of 1882 he began to suffer from an irritable bladder, with occasional febrile attacks, which passed into considerable irritation of the urinary organs, with pyuria, ischuria, &c., and he was made very uneasy by being told one day that in addition to the pus, albumen and renal tube casts had been detected. The renal pelvis, bladder, and prostate—in fact the whole urinary tract—seemed to be in turn affected by some irritant. One day he bethought him to examine the pus, which was passed in large amount, to determine its source, and to ascertain whether it came from a mucous surface only. On adding acetic acid to the deposit to ascertain the presence of mucus, he was surprised to see the whole microscopic field covered with uric acid crystals to an amount which he had never seen before. Yet there was no suspicion of gravel or calculus, and he rightly inferred that this excess of uric acid indicated energetic alkaline treatment. This he at once commenced, taking borate of soda and Carlsbad water, with almost immediate disappearance of the uric acid crystals from the urine. He continued the treatment for three months, and has never passed any pus, albumen, or casts since. He could give no other explanation than that the blood and urine being highly charged with urates in solution, had acted as irritants to the whole urinary tract, exciting a purulent catarrh—in fact, an inflammation analogous to that which occurs in gout when urates are deposited in the tissues. A few remarks upon the physical and anatomical differences between calcareous deposits in the kidney and the urates closed the communication.

"WHAT! FOR SEWING UP DEAD PEOPLE'S THROATS?"

SUCH was the graceless rejoinder to a request for the usual surgical fee due to one of the district medical officers under the jurisdiction of the Camberwell Board of Guardians. The person who thus met the application was the chairman. It seems that a woman had committed suicide by cutting her throat, and the medical officer who was called to see her, finding important parts severed, pursued the usual plan. The patient did not recover. "If he (the doctor) had brought the dead woman to life there might have been some reason in this application," was the remark of another member of the board, and it struck the assembled administrators as so witty that it was received with "laughter." Leaving the Camberwell guardians to enjoy their grim joke, let us ask the profession and the public what is likely to be the effect of this flippant refusal of a surgeon's claim for services rendered in an emergency? We reply simply this, that while no member of our profession would under any conditions, we are persuaded, omit to do any act which may be held to promise help to a fellow-creature in sore distress or peril, there will be no incentive to give the sufferer the benefit of an extra chance of success. Now, as a matter of fact, the throat ought, of course, to be at once attended to in any and every case of extensive laceration; but if the proper fee for surgical assistance is to be refused at the discretion of ignorant and unfeeling men who happen to be guardians of the rates—because intelligent and humane people do not, as a rule, care to accept such offices under the existing system of Poor-law administration—medical officers will certainly not take pains to perform any act which is not imperatively and urgently necessary. It is penny wise and pound foolish to treat the medical profession in this niggardly fashion, unless, indeed, it be economical to reduce the chances of recovery in cases of the class to which we allude to a minimum, lest, in the event of recovery, it should prove that the sick person is chargeable to the rates, of which men like those of Camberwell are the official guardians!

HERBALISTS AND THEIR VICTIMS.

THE danger attending the administration by ignorant and unqualified persons of remedies possessing active poisonous properties is well illustrated by an inquest held last week on the body of a poor woman who died from an overdose of lobelia prescribed for her by a herbalist. From the evidence it appears that she had been suffering for some time from bronchitis, but instead of seeking proper medical advice determined to consult a "herb doctor." She sent a friend to a "herbalist" who vends his remedies in the neighbourhood of Bath-street, City-road, and obtained from him for half a crown a bottle of medicine, a plaster, and some pills. The dose of the mixture was stated on the bottle to be from one to two teaspoonfuls, but the purchaser was informed that the patient might "take the lot" without doing her any harm. She accordingly took half the bottle, and died in forty minutes. Dr. Stevenson, the well-known lecturer

on Medical Jurisprudence at Guy's Hospital, analysed the contents of the stomach, and found that death had been caused by lobelia. It had been given in combination with acetic acid, which had intensified the action of the drug. Probably the unfortunate woman had taken twenty-eight grains, as that quantity was contained in the half of the mixture left in the bottle. The coroner explained that it was a criminal act to prescribe a poisonous drug negligently or in ignorance of its properties, and the jury returned a verdict of manslaughter against the herbalist. It is well known that lobelia is imported from North America, where it is grown by the Shaking Quakers of New Lebanon. It is no harmless drug, but a deadly poison. Deaths from its careless administration by "botanical doctors" are of such constant occurrence that it is a matter of surprise that the dangers attending its use are not more generally recognised, even by those deluded and ignorant persons who take quack medicines with such reckless prodigality and confidence. The tincture of lobelia is of course used as a legitimate remedy, but it is administered only in comparatively small doses, its effects being watched with anxious care. In its action on the system it closely resembles tobacco, and the slightest indiscretion in its administration may lead to collapse, and even death.

THE HOMES OF THE POOR IN OUR LARGE TOWNS.

THE bitter cry of London has quickly found an echo among the large towns in the provinces—Liverpool, Bristol, Glasgow, and others, all suffer, and have to contend with the same evil. What strikes one most in reading the reports that come to hand day after day is that, though the question of the housing of the poor is with all the pressing question of the day, it presents itself in a different form in the various towns. Thus in one place the difficulty is from insufficient accommodation, the poorer parts of the town being encroached upon by the extension of the more wealthy quarter, or else swept away to make room for railway improvements, manufactories, and the like. In another city, house room may be said to be fairly abundant, but the poorer districts have increased with the general growth of the town; and unfortunately the sites selected, or, to speak more correctly, the only sites available, on which new buildings have been erected, are altogether unfitted for the purpose, being placed in positions where it is difficult to apply either satisfactory drainage or provide an adequate water-supply. Others again are built on land below flood level, and are thus exposed to inundation more or less severe during a rainy season or after a heavy fall of snow. Some towns, too, have suffered more severely than others from the enterprise of the jerry-builder; and where this is the case the work presented to the sanitary authority is of a most formidable character. It is possible to increase the dwelling-house accommodation, to deal with situations rendering drainage and water-supply difficult of application, and to provide embankments and dykes to restrain and carry off the water caused by floods, but nothing short of an absolute erasement, not only of the walls, but of the very foundations, can abate the misery, wretchedness, and disease existing in these creations of an unholy speculation. The cost to a town where such structures abound, from the pauperism, sickness, and drunkenness engendered, is incalculable, the burden on the rates from these causes being considerably more than the interest on the money that would be required for the reconstruction of the dwellings. From the foregoing considerations it will be seen that whilst every large city has more or less the question of the housing of its poor forced upon it, the problem presents itself in a different aspect in individual towns. Circumspection, therefore, is required in order that the proper remedy may be applied in each case. Sensational articles in the local press are of undoubted value in rousing the attention of the inhabitants and exciting the determination to remedy the evils and remove the scandal; but judgment is called for in dealing with the question if an undue waste of money is to be prevented. In this case the opinion of the medical officer of health will be found the most trustworthy, as he must undoubtedly be the best judge of the requirements of his district, and of the points that are most pressing for reform and improvement. We make this suggestion because of late there has been a tendency in many quarters to supersede professional judgment in this matter, and to urge the adoption of schemes of reform which, though desirable, are at present impracticable.

PROFESSOR STOKES ON NERVE-STRETCHING.

FOLLOWING closely upon the report of Mr. Marshall's Bradshawe lecture at the College of Surgeons, on "Nerve-Stretching for the Relief or Cure of Pain," comes an account, from Professor W. Stokes of Dublin, of the results obtained in two cases of locomotor ataxia in which the sciatic nerve was stretched. In the former of these the success was sufficiently encouraging. The operation was followed by the restoration of plantar sensibility, by marked diminution both in frequency and intensity of the shooting pains, and by temporary relief from vesical irritability. There was no return, however, of the patellar reflex, no improvement in locomotive power, and no change in the muscular incoördination. The force employed was estimated roughly at about eight or ten pounds. Antiseptics were used, and the wound, though slow in healing, was always aseptic. In the second case both sciatic nerves were stretched, and very marked and abiding were the beneficial effects, although "severe constant pain at the situation of the operation, accompanied by spasmodic contraction of the muscles of the leg, were complained of by the patient for some hours after the operation." The lightning pains were absolutely abolished; there was temporary increase of power in the legs, and the urinary troubles were abated. Professor Stokes remarks that the *rationale* of the treatment remains as yet unexplained, although he admits a possible solution of the problem based on the observations of Drs. Brown-Séquard and Bastian, that the operation produces "a certain amount of vaso-motor paralysis resulting in vascularity and increased temperature, and that these may lead to improved nutrition of the affected part." Professor Stokes differs from Mr. Marshall as to the advisability of using a dynamometer to estimate the force exerted, since he has decided to employ it in future operations. Professor Stokes' experience leads him to the conclusion that a force of ten pounds is sufficient for the sciatic nerve. Mr. Marshall thinks one of thirty pounds is a very safe one. Both assert eighty-eight pounds, the maximum fixed by M. Artant, to be replete with danger. Reference may be made to Mr. Marshall's lecture in THE LANCET of Dec. 15th, 1883, and to a leader thereon in the succeeding number.

FOOT-AND-MOUTH DISEASE IN PALESTINE.

A CORRESPONDENT to *The Times* points out that for the first time in history foot-and-mouth disease is raging amongst the cattle in the villages of Southern Palestine. He asserts that no cattle have been introduced into Palestine, and infers that the disease is of spontaneous origin. This view is certainly not supported by the contentions of agriculturists in this country, for they clamour loudly for legislation, which would be of little avail unless the disease were invariably due to importation. And in view of the numerous channels by which this infection can be conveyed, quite apart from the importation of live cattle, it would

be unsafe, because no such importation is known to have taken place, to assume that the poison has not found entrance by some other means, as by the clothing of some shepherd recently arrived from a neighbouring country. The circumstance is, however, an interesting one, and any facts which tended to exclude importation of infection, by whatever channel, would be worth recording.

PATHOLOGICAL SOCIETY OF LONDON.

THE annual meeting of the Pathological Society was held on Friday, January 4th, when the retiring Secretary, Mr. Henry Morris, read the report of the Council for the past year. The report showed that the Society was still in a prosperous state. The total number of members is at the present time 669. The obituary of the past year included the names of G. H. Evans, C. Hilton Fagge, Nathaniel Montefiore, Jardine Murray, Richard Phillips, and James Hunter. Dr. Samuel Wilks had been appointed trustee in succession to Dr. Peacock. Reference was made to the interesting debate on diabetes, and the report of the committee on the microscopical sections of the brain and spinal cord in diabetes, both of which had been published in the last volume of the Transactions. The finances of the Society were shown to be in a satisfactory state; fresh investments had been made. The total income during the past year was about £626, the total expenditure £560. A tribute of praise was unanimously awarded to Mr. Wheatley, the permanent secretary, for the excellence of his services to the Society. With a view to facilitating the work of the fortnightly meetings some new regulations had been framed. But the Council felt that something more would yet have to be done in the matter. Mr. George Lawson proposed, and Mr. Barker seconded, that the report of the Council and treasurer be received, adopted and printed. A vote of thanks to the retiring officers was proposed by Dr. Burney Yeo, and seconded by Mr. Durham, for which Mr. R. W. Parker returned thanks. Dr. Sidney Coupland proposed a vote of thanks to the two retiring officers, Dr. George Johnson and Mr. Henry Morris; this was duly seconded by Mr. Frederick Treves, and Mr. Henry Morris briefly replied. In addition to the above formal business the President read an interesting address, a full account of which we print elsewhere. The following are the officers of the Society for the ensuing year:—President: Mr. John Whitaker Hulke, F.R.S. Vice-Presidents: Dr. William Henry Broadbent, Dr. Cayley, Dr. George Johnson, Dr. Samuel Wilks, Sir William Bowman, Bart., F.R.S., Mr. John Croft, Mr. Arthur E. Durham, Mr. George Lawson. Treasurer: Mr. John Wood. Honorary Secretaries: Dr. James F. Goodhart and Mr. Henry Trentham Butlin. Council: Dr. Robert Barnes, Dr. Curnow, Dr. Mahomed, Dr. Payne, Dr. Poore, Dr. Roberts, Dr. Sharkey, Dr. Southey, Dr. Turner, Dr. West, Mr. Barker, Mr. Clutton, Mr. Cripps, Mr. Doran, Mr. Gould, Dr. Ridge Jones, Mr. Langton, Mr. Clement Lucas, Mr. Henry Morris, Mr. Nettleship. Drs. Burnet and Hadden acted as scrutineers of the ballot box.

THE BITE OF AN EPILEPTIC.

ATTENTION has been drawn to the danger of injury from the bite of a human being while suffering from a fit. A young man who assisted a woman who had fallen in a fit and was convulsively biting everything within reach, received a bite on the hand and died three days afterwards. This created a scare, and gives rise to anxious and grave questions. In all probability the man who met his death in this way would have fallen a victim to any other injury producing an equally strong impression on his body and mind. There is no poison in the bite of a person in a fit, as there is in the bite of a rabid dog. Many scores of attendants on epileptics are bitten and nothing comes of it. Any wound may set up serious irritation, or erysipelatous inflammation may supervene, with the result of placing life in imminent peril; or terror may kill. It is, of course, desirable that every care should be taken to avoid the bite of an epileptic, as it is also that of any other excited or enraged creature; but there is not the slightest ground for supposing that worse consequences will follow an injury of this class than one of any other description, if it be equally severe and is attended on the part of the victim by a morbid state of the constitution.

ARTERIO-VENOUS ANEURISM OF COMMON CAROTID ARTERY AND INTERNAL JUGULAR VEIN.

DR. L. A. STIMSON records a very interesting case of this decidedly rare affection. The patient, a man twenty-five years of age, was stabbed in the left side of the neck with a penknife in February, 1882. Profuse hæmorrhage followed, but was checked permanently in two hours. The wound healed in a week, but the neck continued swollen, and in the following June, after a "spree," a lump appeared in the throat, accompanied by swelling of the face and neck and dyspnœa, and at this time a thrill was noticed in the neck. In October the man complained of vertigo, dimness of vision in the left eye, deafness on the left side, and gastric disturbance, and Dr. Stimson found a marked thrill over the left side of the neck down to the clavicle, with a "loud double sound." It was decided to operate, and a single ligature was placed on the carotid artery below the omohyoid muscle. Recovery was rapid. The thrill was just perceptible at the first dressing on the fourth day, but then disappeared. During convalescence he suffered from slight and temporary dizziness and loss of power in the right hand. On the tenth day, too, he awoke from sleep full of alarm, with dyspnœa and a very labouring heart. The patient was exhibited to the members of the New York Surgical Society in good general health. The record of the case (in the *New York Medical Journal*, December 1st) is not detailed sufficiently to put it beyond question whether the lesion were an aneurismal varix or a varicose aneurism. The two conditions, often confounded together, are really quite distinct, and demand a different kind of treatment. The very prominent thrill referred to in this case suggests the probability of its being aneurismal varix.

THE STOKE NEWINGTON MURDER.

THIS case, which has created a deep impression upon the public and the profession, is extremely interesting in its medico-legal aspects. Apart from the corroborative evidence supporting the theory of homicide afforded by the general surroundings, there are several facts of intrinsic value to be gathered from the post-mortem examination, which point unmistakably to the correctness of the conclusion arrived at by Mr. Bond and Dr. White. The body of the deceased was found in a reservoir with a handkerchief that belonged to him tied tightly round the neck. The mark made by this, says Mr. Bond, "was just where it would not be in suicidal strangulation—viz., sloping backwards and upwards with the knot behind." Little or no subcutaneous extravasation had taken place, but this can be accounted for by supposing that the strength of the victim had been greatly expended in the previous struggle. When a body is found in water the presumption is that death took place by drowning; but this may be negatived, as it was here, by the absence of water, weeds, mud, &c., from the air-passages. The positive evidence, consisting of the extreme congestion of the brain and the other structures above the ligature, and of the engorgement of the lungs with subpleural emphysematous

bubbles from rupture of the air-cells, points unmistakably to strangulation. The sequence of events appears to have been as follows:—A violent altercation before and during the tightening of the handkerchief, fainting from exhaustion, submersion. That the handkerchief belonged to the deceased goes for little, since it was proved that he had been accustomed to wear one round his neck at nights. The murderers would seem to have found it a ready aid in carrying out their fell designs. Everything suggests robbery as the motive for the crime.

THE SUDDEN DEATH OF A MEDICAL STUDENT.

AN inquest was held on Jan. 1st at Guy's Hospital, relative to the death of Edward Walter Roberts, a medical student, aged twenty-five. It appears that the deceased, who had "enjoyed excellent health," had partaken heartily of dinner and supper with a friend. Accompanied by the latter he started for home shortly after midnight, but before he reached his destination his companion heard him call out, and turning round found him on the pavement in a dying condition. From the evidence of the doctor who made the post-mortem examination we do not gather that any organic disease was discovered. The jury returned a verdict in accordance with the medical testimony that death was due to failure of the heart's action from exposure to cold combined with the effects of having eaten a heavy supper. We do not wish to impugn the validity of this, but it is, to say the least, unusual for a healthy young man to succumb to such conditions. It may be, however, that we are only imperfectly informed of the facts, and that something else conduced to the fatal event. Is it quite certain that the fall on the pavement was not the immediate cause of the syncopal attack through reflex inhibition of the cardiac branches of the vagus?

PROFESSOR BILLROTH'S ANTISEPTIC PRECAUTIONS.

THE Vienna correspondent of the *Gazzetta degli Ospitali* was recently invited to a laparotomy in Professor Billroth's clinique in the following note:—"Dr. —— is hereby invited to the operation of —— which is to take place ——. It is understood that Dr. —— undertakes not to visit the same day, before the operation, sick rooms, dissection rooms, or other places in the Pathological Institute, and not to wear clothes which he may be in the habit of wearing in visiting these places."

MISLEADING MEDICAL ADVERTISEMENTS.

OUR attention is again drawn by a correspondent writing above the signature "Candidate" to a practice which, from the many complaints that have reached us in reference to it, can be by no means infrequent. It is that of advertising certain appointments as vacant, asking properly qualified gentlemen to become candidates, while all the time it has been determined to fill up the vacancy by electing some one particular gentleman. "Candidate" asks for an expression of opinion on this point. Stated baldly, there can be no doubt that it is distinctly wrong, a species of deception calculated to occasion serious inconvenience and even loss to many men, and one that no respectable body of gentlemen should ever become a party to. But several interesting questions arise in connexion with it. Where the issue of an advertisement is optional with the electing body, it is of course a wanton disregard of the principles which should govern the conduct of gentlemen towards each other to insert a "bogus" advertisement. But we trust that such instances are very rare. The question has generally, at any rate, arisen in connexion with institutions in which it is one of the binding laws that *all vacancies* shall be duly advertised. Such a law is eminently wise and just, and is made with the express purpose of preventing what may be spoken of as "jobbery." This being so, it is a grave question whether electors thus restricted are ever justified in making choice of a man to fill a post until the issue of proper advertisements has shown what candidates will come forward. On the other hand, there are circumstances in which one particular individual, by reason of previous work for or at the institution in question, personal knowledge by the electors, &c., is specially eligible for the post. And in some cases vacancies are made only to give the means of electing certain individuals to particular posts. Such power used wisely, and not for merely personal ends, is perfectly legitimate. But in all such cases precautions should be taken to prevent others from a hopeless candidature involving loss of time, money, and often of heart too. We conceive that the proper course in view of any election is to determine first of all whether the electors have already fixed upon any particular individual. If they have, either no advertisement of the vacancy and election should be issued, or, if that be binding by the rules of the institution, some indication should be given of the real reason of inserting the advertisement, or a special request made that all intending candidates should communicate at once with the secretary, who should be instructed to inform them of the true state of the matter. In all cases where electors are not prepared to make such a preliminary choice, the election should be absolutely free and open to all comers.

ALCOHOL v. STRYCHNIA.

AT a meeting of the French Society of Temperance, held on Dec. 23rd last, the subject of the antagonism of strychnia and alcoholism was discussed. It would appear that whilst strychnia is capable of controlling the functional manifestations of drunkenness, yet it was contended that it had no influence for good over the effects of alcohol on the organic tissues. We understand from the report that the alcoholised individual when also strychnised did not appear intoxicated, but was nevertheless just as liable to, for example, cirrhosis of the liver.

CHAIRS IN HYGIENE.

IN a report recently issued by the Illinois State Board of Health reference is made to a schedule of the minimum requirements which that Board intend to make a condition of recognition to practise within their limits, and it is stated that the principal criticism they have received on it is that the usual College curriculum is so full as to leave no room for a chair in Hygiene. In answer to this the State Board points out that a knowledge of hygiene and preventive medicine is of far more importance to the general practitioner than such superficial acquaintance with many of the specialities as only is possible except in post-graduate courses.

STRAPPING THE TESTICLES.

ALL who have attempted by means of strapping to apply firm and equable pressure to an enlarged testicle will have experienced that it is a manœuvre demanding some practice and skill for its successful performance. Thus it is that various substitutes have been suggested. Dr. A. J. Marston, of Worcester, U.S., writes to us to say that he has used with advantage a bandage of pure rubber three-quarters of an inch wide and two feet long. Isolating the testicle in the ordinary manner, he winds this bandage spirally round the organ, starting from the cord and passing up again to it; the bandage is then secured by a tape in

the ordinary way. One advantage of this plan is that the pressure being elastic, it is maintained even after the testicle has shrunk to some extent.

UNCERTIFIED DEATHS.

DR. MACLAGAN in a report to the Hexham Rural Sanitary Authority points out that in his district no less than 13·6 per cent. of the deaths registered are either not certified at all as to cause, or else the cause is stated either as the result of an inquest or by a coroner without any inquest, in so vague a manner as to be useless. Even as regards those cases in which inquests are held, many instances occur in which no medical evidence is given. The total deaths in the district in 1882 were 441, and of these there was no medical certificate as to the cause in 60 cases. Of these 60 deaths, 36, or 8·1 per cent. of the total deaths, were not certified in any way; 18, or 4 per cent. of total deaths, were certified by the coroner as the result of inquests; and 6, or 1·3 per cent. of total deaths, were so certified without any inquest being held. The mere fact that such results are possible is of itself a proof that amendment of the law as to the registration of deaths is necessary, and Dr. Maclagan suggests that there would be much advantnge if all uncertified deaths were reported to the medical officer of health to be investigated by him, instead of their being reported, as now, to the coroner.

AN ELECTRICAL PHOTOPHORE.

ON Monday evening last Mr. Samuel Osborne showed a small electric lamp, which he had found of much value in the surgical diagnosis of diseases of the testicle. This photophore, when affixed to the forehead, would be specially useful in the examination of the dark places of the human anatomy. The value of the projection of a new and intense light upon those obscure sites will be readily recognised. The lamp is the invention of Dr. Paul Helot of Rouen. The battery and the construction of the neat instrument are the work of M. Trouvé.

CRYSTALLINE OXYGEN AND LIQUID NITROGEN.

FROM a very brief report of a communication made by M. Debray to the Académie des Sciences we gather that some new facts relating to the liquefaction of nitrogen have been brought forward. Oxygen had been liquefied by being submitted to great pressure, and when this pressure was suddenly withdrawn the lowering of temperature was so great that crystals of oxygen appeared in the liquid mass, and the nitrogen in contact with the oxygen assumed the liquid state.

INQUESTS WITHOUT MEDICAL EVIDENCE.

ON Wednesday, January 2nd, the body of a male child, apparently about four years of age, was found in the Grand Surrey Canal at Peckham. It was fully clad, and had a handkerchief tied tightly round the neck, which was much swollen. The police-constable who was called to the case did not seek the aid of a doctor, as he noticed no appearance of life. At the inquest the mortuary keeper stated that, in *his* opinion, death had taken place three or four days prior to the finding of the body. Following the coroner's suggestion, the jury gave their verdict without a proper post-mortem examination being held, or medical evidence taken. A more careless and slipshod way of conducting an important medico-legal case could not well be conceived. If we are correctly informed, there was no proof adduced that death took place by drowning. In the somewhat analogous case at Stoke Newington it was shown that such was not the fact. We hold that the body, if buried, ought to be exhumed and examined forthwith, and the inquiry re-opened.

PORRO'S OPERATION.

Il Morgagni (Nov. 1883) relates that on Aug. 29th a healthy living fœtus was removed by utero-ovarian amputation (Porro's method) from C. P——, who was suffering from rickets. The operation was performed by Professor Antonio Martini, in the Ospedale degl' Incurabili, after consultation. In less than four weeks the patient left the clinique in excellent health, and the child continues to thrive. The operation was performed under anæsthesia in forty-five minutes.

THE APOTHEOSIS OF THE LATE "PROFESSOR" HOLLOWAY.

WAS our contemporary the *Graphic* acting the part of a wilful or an unconscious humourist in its last week's number? At page 5 may be seen a trio of celebrities, in which the late "Professor" Holloway, of pill and ointment renown, is flanked on either side by the newly created baronets, Sir W. Bowman and Sir Joseph Lister. The "Professor" looks as though he felt ill at ease in his forced companionship, whilst the eminent oculist and surgeon evince a calm resignation to their fate. The one seems murmuring "Sic transit gloria mundi," the other "Requiescat in pace." 'Tis *graphic*, very *graphic*.

WE have just received the first number of the weekly publication, *Compte Rendu Général des Académies et Sociétés Médicales de la France et de l'Etranger*. This new venture has been undertaken in order to give the widest and most rapid publicity to the work of the learned bodies, and at the same time to enable the author of each communication to enjoy priority, where he may rightfully claim it. It is thought also that the labour of reference will be facilitated. In addition to reports of the proceedings of the learned societies of France, the journal will publish those of the chief medical societies in London, Berlin, Vienna, and elsewhere. In the present number there is a brief report of the last meeting of the Royal Medical and Chirurgical Society.

AT the Essex Epiphany Quarter Sessions, after an animated discussion on the precautions to be taken against damage by fire at the Lunatic Asylum, a resolution was passed authorising the Committee of Visitors to the asylum to heighten the water tower in order to obtain a greater pressure at the hydrants.

THE Council of the Faculty of Physicians and Surgeons of Glasgow have appointed Dr. D. J. Hamilton, Professor of Pathological Anatomy in the University of Aberdeen, Faculty Lecturer for the year. The subject of Dr. Hamilton's course will be "The Structure and Functions of the Brain in relation to Disease."

THE captain of the steamship *Senella*, which arrived at Middlesborough on the 7th inst., reports the loss of three of the crew and one passenger from yellow fever. The effects of the men were at once removed to the Fever Hospital for disinfection.

IN April of this year Prof. Frerichs will have completed his twenty-fifth year of office as Director of the Medical Clinic at Berlin. A committee has been formed to make preparations for celebrating the occasion with due honour.

AT a meeting held last week Mr. Theodore Stack was elected Professor of Dental Surgery in the Medical School of the Royal College of Surgeons in Ireland.

LETTSOMIAN LECTURES
ON THE
OPERATIVE TREATMENT OF SENILE CATARACT.

LECTURE I.

MR. R. BRUDENELL CARTER said: "When I first became aware of the honour which had been conferred upon me by the Council of the Medical Society of London, by my election to the office of Lettsomian lecturer, my thoughts naturally ranged over the whole field of ophthalmic surgery in search of some topic which might furnish me with sufficient material for discourse. I have been able to discover nothing of greater promise than the operative treatment of senile cataract, an affection which still levies its annual tribute of victims, and which advances of therapeutical science have done nothing either to prevent or to cure. In the character of the malady itself there is something which appeals with irresistible force to our most kindly sympathies. At a period of life when the physical powers are beginning to decay, when the approach of old age is making itself felt by the gradual curtailment of all pleasant activities, and when the resources afforded by vision are therefore relatively increased in value and importance, these resources are themselves threatened by a degeneration of such gradual progress that its oncoming cannot be overlooked by the sufferer, to whom it brings home the anticipation of loss of sight in a manner so forcible as to become almost as distressing as the reality. It was held as a canon in surgery that no operation for the removal of cataract should be performed so long as the state of the patient admitted of being made worse by failure, and the long misery of suspense which this practice entailed upon numbers of people received but a poor compensation from the completeness of the relief which, in cases of favourable issue, was eventually effected. It must not be thought that any of the statistics of cataract operation prior to the introduction of the ophthalmoscope could be regarded as quite trustworthy, or could be used with entire satisfaction as the basis of a comparison between former times and the present; but it was a common estimate in 1859 that about 15 per cent. of all extraction cases ended in total loss of sight, and that in about 25 per cent. more the results were imperfect, leaving about 60 per cent. of the whole which were finally satisfactory. There could be no doubt that the average results of the present day were far better than this, and also that we have gained in a direction almost equally important to our patients by being able, with safety and propriety, to operate at a much earlier period than was formerly customary, and thus not only to deal with younger and stronger people, but also to relieve these people from anxiety about the issue before the defect by sight amounted to actual incapacity. The assertion that ophthalmology has been revolutionised as a branch of science is one the truth of which will be universally admitted; but the assertion that it has also been revolutionised as a branch of surgery is one which some among my hearers may regard as still requiring the support of evidence. Prior to the use of the ophthalmoscope the diagnosis was extremely difficult and uncertain. In old treatises we find elaborate rules for distinguishing cataract from glaucoma; and errors must have been of frequent occurrence. The foreign fabricators of statistics have well-nigh come to occupy the position of the manufacturer who adopted in the furnace of his steam-engine all the patented contrivances for diminishing the expenditure of fuel. He adopted the improvements which saved 50 per cent., 40 per cent., 30 per cent., and so forth, until at last he not only ran his engine for nothing, but actually derived a handsome income from the payments made to him by coal dealers as a recompense for keeping it going. In like manner, a due regard for accuracy would certainly compel some of the originators of improved methods to confer normal vision upon three eyes for every two upon which they were called to operate. As a matter of fact, they could hardly go as far as this; and some of the gentlemen whose exploits are chronicled in Germany or America are so modest that they profess to fall short of a perfect result in at least 1 per cent. of their cases. Their scrupulous veracity reminded one of the American sportsman who related how he had once killed nine hundred and ninety-nine wild ducks by a single discharge of a swivel gun, and who, when asked why he "did not say a thousand at once," replied that he "would not peril his immortal soul for the sake of one duck!" It was certain that the time had come for an endeavour to explode some of the pestilent nonsense which had been talked and written on this subject. An operator who aimed at a very large percentage of success would have to select his cases with extreme care; and to do this he would have to refuse relief to numbers of patients who ought to have at least the chance of obtaining it. Even when the selection had been made he would still be liable to accidents—vomiting, intra-ocular hæmorrhage, spasm of recti muscles. It was far better to admit that "time and chance happeneth to all." The recent statistics of the New York Ophthalmic Institute might be regarded as trustworthy. Out of 144 operations by von Graefe's method, the results were stated to be "good" in 128 cases; "moderate" in 12 cases; and "failure" in 4 cases. The analogy might at first sight appear to be a somewhat strained one, but the improvements which have been effected in the extraction of cataract often reminded one of those which have been effected in the operation of ovariotomy." The lecturer then sketched the differences between ancient and modern cataract extraction. For 110 years prior to 1860 the method had remained substantially unchanged. It was the operation of Daviel, modified only by the introduction of Beer's triangular knife; it displaced the still earlier operation of depression or couching. Daviel's, or the flap extraction, was then described. When the operation was finished the lids were closed, and as a rule were not opened for any purpose of examination until after the lapse of from five to seven days. Even after the introduction of anæsthetics they were but seldom employed in flap extraction, chiefly because the large size of the external wound rendered vomiting an extremely dangerous occurrence. The eyeball was originally not fixed or held, but only supported against the knife by the fingers of the free hand of the surgeon. If the patient struggled or rolled the eye upwards both the points of puncture and of counter-puncture and the line of section were liable to be misplaced. There was frequent failure to retain the aqueous humour for a sufficiently long period. The consequences of the several accidents to which the operation was liable were then analysed. Von Graefe was the first operator who departed from the accepted routine; for, being wishful to know why some eyes underwent suppuration while others escaped, he adopted the practice of opening every eye daily, after extraction had been performed, so as to observe the first signs of suppuration and the precise locality in which they occurred. He succeeded in establishing two distinct varieties of the process. In one the initial phenomenon was iritis, in the other class the initial phenomenon was necrosis of the cornea. Before von Graefe made any attempt to turn his knowledge to account Dr. Mooren suggested that the risks of iritis from contusion might be diminished by the performance of iridectomy as a preliminary operation. His results were so excellent that they were received with very general incredulity. It might be remarked in passing, that both the incredulity and the means adopted to combat it seemed to indicate that the standard of scientific veracity is less high in some countries than in England. Mooren's pamphlet reached Mr. Carter towards the latter end of 1862, and in December of that year Mr. Carter adopted his method, this being, he believed, the first time that it was used in England. The operation was completely successful. Mooren was speedily followed by other innovators, the most remarkable being Dr. Schuft, afterwards called Waldau, who proposed to remove cataract by scooping it out of the eye with a little spoon through a comparatively small wound at the corneal margin. Schuft's spoon was a small oval one, with a margin all round, perpendicular to its base. Both Sir William Bowman and the late Mr. Critchett made some modification of it. Von Graefe's "modified linear extraction" was next given to the world. The steps of this procedure were then detailed. The dangers entailed in the section were pointed out—sympathetic ophthalmia, &c. In consequence of the danger of plastic inflammation, surgeons generally began to return to the corneal section. The method known as that of Pagenstecher was next taken into consideration. This plan advocated the extraction of the lens in its unbroken capsule.

The liability for the hyaloid membrane to rupture, with escape of the vitreous, as well as the difficulty in some cases of breaking down the adhesions of the capsule, were pointed out. When employed in selected cases—viz., in old people whose cataracts are mature—the operation often succeeds extremely well, but it has a drawback in the fact that deep anæsthesia is required. The methods introduced by Jacobson and others seemed hardly to call for notice; but the lecturer referred to the surgical procedure of Dr. Kuchler of Darmstadt, who extracted cataract by making an incision straight across the cornea, on its horizontal meridian, and by pressing out the lens through the natural pupil. This operation seemed to set all the principles of surgery at defiance, and the reasons for this opinion were given. Notwithstanding the evils, the operation was one which could be performed with extreme facility. Liebreich introduced to the profession what he called a "new" method, which was, in fact, nothing more than a slight modification of Kuchler's proceeding. Mr. Carter was disposed to think that the chief difference between Liebreich's and Kuchler's methods was not in favour of the former, chiefly because the section being made through the lower part of the cornea would prove a greater disturbance to the act of reading. Liebreich recommended his operation by the odd arguments that it was very easy of performance, and that all the instruments required for it might be carried in the waistcoat pocket. The method always appeared to Mr. Carter to be surpassed, as regards simplicity, as well as ease and celerity of performance, by one with which he became acquainted when surgeon to the South London Ophthalmic Hospital, where it was the custom to describe it as the "marital" method. The patients were mostly of the female sex, and were persons in whom the lens had been expelled from the eye by the smart application of the clenched fist of a male companion to the margin of the orbit. The only instruments required were such as every man carried for daily use, and no pocket at all was needed to contain them. Some of the patients made excellent recoveries; and Mr. Carter had heard that the same assertion might be made with regard to those who had been operated upon after the manner of Liebreich. The general results of the work of the last twenty years might be summed up by saying that the performance of iridectomy permits the escape of the lens through a smaller section, and also, by preventing bruising of the iris, diminishes the risk of inflammation of that membrane. The smaller corneal or corneo-sclerotic section diminishes the risk of sloughing of the cornea. In time, too, it came to be recognised that the long delay until the cataract was mature might, to some extent, be departed from.

SURGEON-GENERAL HUNTER
ON THE
CHOLERA EPIDEMIC OF 1883 IN EGYPT.

ON Wednesday night Dr. Hunter read a paper before the Epidemiological Society on this subject.

After a few preliminary remarks referring to the impossibility of giving a comprehensive account on the occasion, Dr. Hunter proceeded to state that Egypt was an extensive country, stretching from the Mediterranean Sea to the Equator. But Egypt proper owned an area not larger than Belgium, and possessed an alluvial soil, the gift of the Nile, which was rich in decaying organic matter. The interior parts of Egypt were devoted to agriculture, the people led an out-door life, the manufactures were few, and very little rain fell indeed, only a few showers in the cold months. The inhabitants of Egypt proper depended for their water-supply on the Nile. The subsoil water might be said to follow the Nile, being low in January and high in September. The water was often drunk in an unfiltered state and before it had had time to deposit its solid matter. In Cairo there was but one settling tank, which could therefore never be cleaned. In many places no attempt was made to filter the water. In the Cairo works human and other animal excreta were found lying about in every stage of decomposition. In Alexandria the water-supply was good. The river and soil were polluted through countless generations. Bacteroid organisms could be detected in enormous quantities in the drinking water. According to the report of M. Ismalum and Dr. Sonsino, these micro-organisms were not to be found in the water after July 20th, 1883.

In Cairo every sanitary law had been grossly set at defiance. The drainage of the mosques was simply absurd; the sewers were quite open and often contained three feet of filth; they discharged into a pool of water at the back of the town. The town was never free from stenches, and the waterways were polluted by the carcases of cattle. The state of the fellaheen was truly deplorable. Dead donkeys, fowls, goats, and camels were allowed to decompose in all parts. There were no public latrines, and the people were driven to the streets to perform their natural functions. The cesspits of Cairo were horribly inefficient. The wooden carts for the removal of filth were most primitive and insufficient. Radical defects of construction were everywhere patent. The privies and drains were unventilated, and there was direct communication between the privies and the sewers. Having thus sketched the highly insanitary state of the country, Dr. Hunter went on to point out the chief diseases and causes of death. He found that bowel disorders were very common and fatally prevalent. The registration of deaths in Egypt generally was so defective that little reliance could be placed on Egyptian Government statistics. Statistics collected by him, however, were given, showing that the death-rate from bowel affections was exceedingly high. Out of 110 cases of death from all causes in May and June of the year 1883, 57 were from diarrhœa alone. In Cairo, where the registration was more reliable, the high death-rate resulting from bowel disorders was very decided. In 1882, out of 17,296 deaths from all causes, or a death-rate of 14·98 per mille, 10 per cent. were ascribed to typhoid fever, 13½ per cent. to dysentery, and 15 per cent. to gastric catarrh—a very striking mortality as compared with a city like Bombay, where the death-rate from cholera was 2·59 per 1000. Dr. Hunter had found that typhus was not uncommon in Egypt. But little aid could be got from hospital registers of small towns and villages, because the physicians were often incapable of distinguishing between typhus and typhoid.

The English expedition worked for the greater part of their time outside Egypt proper; they were picked men, and, as Colvin Smith had informed him, it was not until the Army had resided in Cairo, where diarrhœa and enteric fever were endemic, that these diseases broke out amongst it. During the last half century there had been six epidemics of cholera in Egypt. In the fifth epidemic at least 61,192 had succumbed to its ravages, and probably this was an understatement. He was unable to give the actual number of deaths from the last epidemic.

Dr. Hunter having given his unqualified opinion that the disease was non-contagious, non-specific, and endemic in Egypt, and that the recent epidemic did not owe its genesis to importation, proceeded to review the different theories which had been advanced to explain the outbreak of last year. The first view was that of Dr. Flood. Mohamed Halifa, a stoker on board the *Timor*, was believed to be the key to the enigma. But this hypothesis was upset by a telegram forwarded to Sir Edward Malet in July, 1883, from which it would appear that Halifa had been given to alcoholic excess (and consequent illness), for which he was imprisoned. But it was shown that his arrival in Damietta took place on July 24th, two days after the outbreak of the epidemic there. Another suggestion was that the Indian contingent of the British Army in Egypt had brought the cholera with them. This notion was regarded as absurd as that relating to Mahomed Halifa. A third hypothesis of importation was afforded in connexion with the traders between Port Said and Bombay. The inquiry on this point has been protracted, and was not yet finished, but Dr. Hunter believed that this view will share the fate of those which preceded it.

Cholera does occasionally occur on board ship, but the tendency is towards its spontaneous disappearance during the voyage. As the Sanitary Commission with the Government of India has remarked, since 1865 Egypt has not suffered once until now. Aden, which is still nearer to India, has only suffered slightly twice since 1865; but cholera has prevailed in different parts of Europe in ten different years since 1865. It is endemic in parts of the Russian empire, yet no alarm is expressed by other countries. The English sailing vessels, the *Persia* and *North Wind*, are often loosely quoted

as having introduced cholera into Jeddah from the Indies in 1865. They sailed from Singapore with Javanese pilgrims, touched at Aleppo on the Malabar coast and at Makallah on the southern coast of Arabia, and reached Jeddah. The voyage in the one case was about fifty days, and in the other over eighty. There was no cholera among the pilgrims until the vessels anchored off Makallah, where new passengers were shipped. Cholera was prevalent during the early part of the year in various towns in the Hadramaut coast, and it was possible to suppose that Jeddah became infected either by the cholera creeping from the land or by the sick pilgrims carried in the ships from Makallah. But in neither case can the disease be said to have been imported from India, and in every alleged instance of such importation the allegation has failed to bear examination. The returns of deaths from cholera in Bombay showed that during the first six months of the last year the rate of mortality was remarkably low as compared with the average rate.

Dr. Hunter next produced a large body of evidence from various quarters tending to show that cholera is really endemic in Egypt. Careful interrogation of two Greek priests at Damietta brought out the fact that two boys, aged five and eight years, had had symptoms which could not be mistaken, and had died before the epidemic appeared—viz., in June. We shall not in this place reproduce all the details Dr. Hunter has gathered; but we may say that evidence collected from able and representative medical men throughout Egypt—Drs. Mackie, Fouquet, Haddad, Demech, Kartulis, Patterson, Honman, McNally, and especially Dr. Kirker, to whom Dr. Hunter is indebted for many able reports and charts—goes conclusively to show that groups of symptoms, which cannot be interpreted otherwise than by giving them the collective name of cholera, are of constant occurrence in Egypt. Objection was lodged by Dr. Hunter against the use of the terms choleriform, cholerine, and cholera nostras. Dr. de Castro, too, had furnished much information; but although Dr. Hunter agreed with his facts, he could not support his conclusions. Dr. Hunter doubted not that if a certain assemblage of signs were present, Dr. de Castro would not hesitate to call the disease pneumonia, small-pox, and so forth, even although in the contagious cases the disease did not spread. Why, then, should he decline to call cholera by its proper name simply because evidence was wanting of its contagious nature?

The next feature to which Dr. Hunter drew attention was the meteorological states which were specially associated with the appearance of cholera. Stillness of the atmosphere, a high temperature, absence of ozone, mistiness, and sultriness had all been noted as the immediate precursors of cholera, not only in India and elsewhere, but in Egypt. The evidence on these points was detailed. Many of the data were owing to the industry and observation of Dr. G. Kirker of H.M.S. *Iris*. Dr. Hunter said that the state of the weather just before the last Egyptian outbreak was unique in its character—red-coloured sky, clouds of thick mist, sultriness. The peculiar condition of the atmosphere on July 23rd was remarkable in the extreme; it might well be termed in the Arabic, *el-hawa-el-asfar*, which is interpreted "yellow air" or "cholera." Dr. Hunter was inclined to believe that these meteorological states acted as exciting causes of the cholera epidemic, the dense state of the atmosphere probably also aiding in the spread of the disease.

HEALTH OF THE NAVY.

THE annual statistical report on the health of the Navy for the year 1882, prepared by Fleet Surgeon Lloyd, shows the average strength to have been 43,475, exclusive of the Royal Marines at headquarters, who are accounted for in a separate return. The cases of disease and injury in the force afloat amounted to 1148, the deaths to 9·49, the invalided to 45·03, and the constantly sick to 47·43 per 1000 of strength. These results show a very slight increase in the proportion of cases and of constantly sick, a decrease of 1·45 per 1000 in the deaths, and an increase of 13·83 in the proportion invalided compared with the preceding year. The reduction in the mortality has taken place entirely in deaths by injuries, those by diseases, and especially by the febrile group, showing an increase. The cases ranged between 850 per 1000 on the Home and 1538 on the East Indian stations; the deaths between 4·39 on the South-east Coast of America and 18·82 in the Irregular Force; the invaliding, between 96·44 on the East Indian and 19·78 on the South-east Coast of America stations; and the mean daily sick, between 34·26 on the South-east Coast of America and 59·1 on the China stations. The high rate of mortality in the Irregular Force was due to 42 deaths under the class of injuries, amounting to 8·23 per 1000 of the strength; of these, 31 were killed in action in Egypt, 4 were drowned, and 7 by accidental injuries. The condition of our naval force, as measured by the death-rate, is very satisfactory; for, if the deaths by violence be deducted, in only one instance has the ratio amounted to 10 per 1000. The exception was the Irregular Force, in which the mortality by disease was 10·59; of this, exactly one-half was caused by diseases of the febrile group, chiefly enteric fever contracted on service in Egypt. The great excess of cases on the Indian station was caused by fevers, principally of the remittent type, diseases of the digestive system, and by debility; and the very high rate of invaliding was induced by debility and diseases of the digestive and nervous systems. The Navy appears to have been remarkably exempt from severe epidemics during the year. Of cholera, only five cases and three deaths occurred; four of them, with two deaths, at Hong Kong. Yellow fever broke out at Jamaica in August, and continued to prevail until the middle of November, 36 cases and 7 deaths having occurred during that period. It is stated to have been due "to the inherent insanitary defects of Port Royal, combined with the abnormal atmospheric and other conditions of the season, and independent of any importation from outside sources." The deputy inspector-general, three out of four of the surgeons attached to Port Royal Hospital, and the dispenser contracted the disease. Twenty-one cases and 3 deaths came from the *Tyrian* gunboat—"a tender that had been a long time in the harbour, and whose sanitary condition had deteriorated in consequence."

On the Home station measles broke out on board the *St. Vincent* training-ship in the summer quarter, when 39 cases occurred, all of which recovered. The disease appears to have been contracted at Portsmouth, where it was then prevalent. On board the same ship, also, 13 cases of scarlet fever were admitted, and, it is stated, "all were, except in one instance, clearly traceable to external origin; in no case could infection from boy to boy be discovered." Several cases, both of measles and scarlet fever, occurred in other ships, but the disease did not spread on them.

Enteric fever is stated as the cause of 67 cases and 17 deaths on the Home station; but 15 of the cases and 2 deaths appear to have occurred in the Irregular Force on the passage home from Egypt, where the disease had been contracted. There were, therefore, 51 cases and 15 deaths due to this cause in the Home force, being in the proportion of 2·66 and ·78 per 1000 of the strength. Of these, 29 cases and 6 deaths were furnished by the *Seaflower* training-brig. The first cases presented themselves on Oct. 11th, when the vessel was lying in Dartmouth Harbour. On the 16th she left Dartmouth for Plymouth, and on the 17th the crew were turned over to a hulk, and the *Seaflower* was placed in the hands of the dockyard to be cleared out and disinfected. Cases, however, continued to occur till November 21st, when the disease ceased. In that time 2 men and 27 boys were attacked, and of the latter 6 died. A board of executive and medical officers, which was assembled on the 23rd October, reported "that the cleanliness and general sanitary condition of the ship was satisfactory in all points, and that the water and provisions that had been in use on board were above suspicion." It appears, however, that for nine days previous to the outbreak, while the *Seaflower* was lying in Dartmouth Harbour, the ventilation of the lower deck was much interfered with owing to the exceptionally wet weather, and during the last three days so bad was it, that the "surgeon in charge states several of the men complained of the smell at night, and headaches, and in several instances vomiting, resulted in the morning. While on the subject of sanitation it should be mentioned that the same limited watercloset accommodation must have been used by any boys who were affected with typhoid diarrhœa, as well as by the healthy ones. There were only two cases among the men, who used separate watercloset and slept in the best ventilated part of the deck." These facts appear to justify the inference that if the state of the brig were not the cause of the fever, it had at least a good deal to do with its spread among the crew. In none of the other

vessels on the station did enteric fever prevail to any extent, and the few cases which occurred were all traceable to shore infection.

On the Mediterranean station 102 cases of enteric fever, with 27 deaths, are returned, mostly contracted on service on the Egyptian coast, and the result of filth contamination and impure drinking water. The greater number of the cases appear to have contracted the disease at Alexandria. On the Pacific station 10 cases and 3 deaths occurred. Eight of these, including 2 fatal cases, were in the *Swiftsure* ironclad at Callao, and appear to have been due to the use of impure water. On the arrival of the ship in October the shore water was tested by the medical officers, and pronounced unfit for use; in consequence its employment was limited to washing and similar purposes, and condensed water was ordered to be used for drinking. For some reason, however, from the 1st to the 25th November shore water was used for all purposes, but, diarrhœa having begun to affect the men, the supply of condensed water for drinking was resumed. On the 12th December a case of enteric fever occurred, and before the end of the year 7 more and 2 deaths. "There is little doubt that the outbreak was due to impure water." On the Australian station 11 cases with 1 death occurred, all contracted at Sydney, and attributed to "the well-known unsatisfactory character of its water-supply."

At Bermuda the unusually large number of ninety cases of lead poisoning was returned. They are stated to have been due "to the chipping of red lead paint in the compartments of the floating dock." Among the fatal injuries a new cause of death is recorded—a fatal shock from an electric lamp on board the *Inflexible* in the Mediterranean fleet. A stoker cleaning some paint work appears to have caught at the lamp to steady himself, and to have been killed by the electric shock.

For the first time in the Naval Reports a return is given of the sickness and mortality of the men at headquarters of the Royal Marines. Their average strength was 5120; the cases among them were in the ratio of 1091 (by a misprint stated to be 1990·82), the deaths 6·64, the invaliding 54·29, and the mean sick 57·93 per 1000. Compared with troops serving at home the ratio of deaths is under the average; but the cases, invaliding and mean sick are considerably above it. They are all higher than among the naval force on the Home station, but this may possibly depend, in a great measure, on the difference of age in the two branches. On this point we are promised information in the Report for 1883. The volume concludes with copious tables showing the working of the Contagious Diseases Acts and their great value in diminishing the prevalence of syphilis in the ports which were under their operation.

THE REGISTRAR-GENERAL'S WEEKLY RETURN.

IT is now nearly fifty years since civil registration was established in England and Wales, and few will deny that the mortality statistics issued by the Registrar-General have, owing in great measure to the confidence inspired by the exceptional talents of the late Dr. William Farr, had no insignificant influence on the progress of public opinion and interest in health matters. The trustworthiness and value of the Registrar-General's figures have, it is true, from time to time been attacked by various assailants, among others by Dr. Watt, Dr. Letheby, Dr. Syson, and Dr. Rumsey. The result of these attacks has hitherto been not only the statistical discomfiture of the assailants (which was scarcely matter for surprise, since the Registrar-General's system of statistics was the creation of Dr. Farr) but also a steady increase of public faith in these statistics. It is with something akin to surprise that we read in a paper recently published by Dr. Arthur Ransome, Lecturer on Public Health at Owens College, the following opinions expressed concerning the Registrar-General's Weekly Returns:—"It is just possible that they may have served some useful purpose," and "there is, in truth, no reason why they should not now be discontinued." Dr. Ransome has been for many years a zealous advocate of sanitary reform, and has not unfrequently pointed out disturbing influences, more fully known to no one than Dr. Farr, which necessitate a certain amount of care in the use of crude death-rates as tests of sanitary condition; but the advocacy by Dr. Ransome of such a drastic measure as the suppression of the Registrar-General's Weekly Return calls for some notice and examination. Dr. Ransome condemns these returns because they are "useless as a warning to sanitary authorities, and misleading as a means of comparing the sanitary condition of different towns." We presume to think that the Registrar-General's returns, weekly, quarterly, and annual, were intended fully as much for the information of the public as for "warning sanitary authorities." Individual sanitary authorities are doubtless in a position to be more promptly and more fully informed as to their own mortality statistics than would be possible from the Registrar-General's returns. For knowledge, however, of the rates of mortality and of the prevalence of zymotic disease outside their own district, sanitary authorities, to say nothing of the public, are practically dependent upon the Registrar-General's statistics. As for the public, for whom the returns issued by sanitary authorities are not generally available (as well as their being in great measure useless for want of uniformity), Dr. Ransome proposes that they shall be deprived of the Registrar-General's figures, because some foolish or interested persons now and then misuse such figures. Too much importance is apt at times to be attributed to high or low annual death-rates prevailing in a single week, or a single quarter, and therefore the public are to be deprived of all means of knowing the relative amount of mortality and zymotic disease-prevalence, week by week, and month by month, in the twenty-eight great towns of England and Wales, having an aggregate population of nearly nine millions of persons. The Registrar-General's Weekly Return gives the result of facts collected in twenty-eight places of observation, thus comprising a wonderfully trustworthy Bulletin of the Public Health, which could scarcely now be dispensed with. The weekly returns, moreover, are summarised from time to time to make the quarterly and annual balance-sheets of the health of our large towns. We feel assured that the public will not agree with Dr. Ransome that these returns are useless, and we should like to have stated more clearly the precise form of mischief which he attributes to those weekly statistics. The Manchester public, especially, should just now appreciate the value of the warning to its sanitary authority implied by the Registrar-General's figures. The fifty-two weekly returns for 1883 show that the death-rate in Manchester during last year was equal to 27·6 per 1000, and was higher than in any of the twenty-seven other large English towns, among which the rates ranged from 17·9 in Bristol to 26·7 in Liverpool. By all means let Dr. Ransome, as Lecturer on Public Health, instruct the public on the use and misuse of death-rates, in which he is more likely to be successful than in his attempt to convince the public that the Registrar-General's Weekly Return ought to be abolished.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council, held on Thursday last, the second Report, dated Dec. 27th, 1883, of the Committee on the mode of election to the Council, and on other matters relating to the charters and bye-laws of the College, was presented, and, after some discussion, approved, adopted, and ordered to be entered on the Minutes.

The first Report of the Committee, dated Oct. 30th, 1883, was approved and adopted by the Council on Nov. 8th last. (See THE LANCET, Nov. 10th, p. 839.)

The Committee in their first Report confined their attention to the consideration of Section 15 of the Charter of the 7th Victoria, relating to the mode of election to the Council. In the later meetings they considered the several charters of the College, and adopted the following recommendations:—

1. That, although certain sections in the several Charters have become either obsolete or inoperative, it is inexpedient that any alterations should be made in those sections. 2. That no alterations are necessary in the Charter of George III. 3. That the sections of the Charter of George IV., p. xxxi. of the Calendar, which restrict the yearly value of property in lands or rents to be held by the College to £2000, be altered so as to provide that

such amount be increased to £10,000. 4. That section 5 of the Charter of the 7th Victoria, p. xxxv. of the Calendar, be altered so as to provide that the conditions of admission to the Fellowship by examination, and the arrangements for the examinations for the same, be in future determined by resolutions of the Council, and not by bye-laws, as required by such section. 5. That in section 7 of the Charter of the 7th Victoria, p. xxxvi. of the Calendar, the amount of the fee payable for the Fellowship by examination be omitted, leaving such amount to be provided for by bye-law. 6. That sections 15 and 16 of the Charter of the 7th Victoria, p. xxxix. of the Calendar, be altered so as to provide that the mode of election to the Council may be by voting papers as well as in person, the quorum of Fellows required to be present at the meeting for election being omitted from such sections, it being desirable that in future such quorum be determined by bye-law instead of by Charter. 7. That in section 5 of the Charter of the 15th Victoria, pp. xlvi. and xlvii. of the Calendar, the words beginning "and the fee," &c., to the end of the section be struck out, it being undesirable that any fee should be paid by members of twenty years' standing on election to the Fellowship. 8. That section 17 of the Charter of the 15th Victoria, pp. l. and li. of the Calendar, be abrogated, it being inexpedient to continue the examinations for the licence in midwifery of the College. 9. And that sections 1 and 2 of the Charter of the 23rd Victoria, p. liii. of the Calendar, be altered so as to provide that the number of members of the Board of Examiners in Dental Surgery may, if thought desirable by the Council, be increased beyond six, the present number; and that the section of the Board consisting of persons skilled in dental surgery be restricted to dental practitioners duly registered under the Dentists Act of 1878. The Committee reserve to a subsequent report their further recommendations on the alterations in the bye-laws and regulations of the College, which will be consequent on the approval by the proper authorities of the proposed changes in the Charters, and also any other recommendations relating to the said bye-laws and regulations which the Committee may consider necessary. An amendment was moved by Mr. Holmes and seconded by Mr. Erichsen on the second section of the Report, to the effect that the president should be elected biennially instead of annually. This was lost by a majority of 12 against 7. It was referred to the Committee to consider section 14 of the Charter, 7th Victoria, p. xxxvii., *seq.* of the Calendar, and to report to the Council whether any alteration should be made therein respecting substitute members of the Council.

At the same meeting Mr. Marshall (the President) was appointed to give the Hunterian Oration in February, 1885. The receipt was announced of two dissertations for the Jacksonian Prize on "The Pathology, Diagnosis, and Treatment of Obstruction of the Intestines in its various forms in the Abdominal Cavity."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Limehouse District.—During 1882 the death-rate exceeded the last decennial average, and amounted to 25 per 1000; and it is pointed out that this, which represents an excess over the death-rate for London generally, is due to the excess in infantile death which prevails in this part of the metropolis, and which is largely due to the poverty of the inhabitants and the suffering and overcrowding to which they are subjected when out of work. An account is given of the sanitary work which has been accomplished, but there is not much to indicate the direction which such work should take in the future, with a view to the removal of conditions injurious to the health of the inhabitants.

Bournemouth Urban District is stated to have a death-rate of 10·05 per 1000 amongst its residents, and of 18·61 if visitors are included. The means of sewer ventilation have been so much improved that it is hoped the charcoal trays in the present shafts may be abolished. This is certainly desirable, since these trays always act as a great hindrance to the entrance of the pure air into the sewers. The flushing of the sewers has also been materially facilitated by the provision of the excellent automatic flush tanks constructed by Messrs. Bowes, Scott, and Read. Unfortunately with all these improvements there is a tendency to the crowding together of newly built cottages in the poorer parts of the district. This should be strenuously resisted, for it is, above all things, important to maintain ample space about houses; and if the existing bye-laws do not at present require this, they should be modified before it is too late. In a place like Bournemouth, the authority should set an example by requiring that, whatever space is available to the front or side of each dwelling, there should be an ample area behind. Some useful diagrams on house-drainage have been appended to Mr. Nunn's report.

Poole Urban District.—The medical officer for this district presents a report which is, on the whole, a satisfactory indication of good work in progress. The death-rate on 12,535 inhabitants was 17 per 1000. The Infectious Hospital was used for the isolation both of measles and of scarlet fever. As regards measles, it appears that a servant girl was admitted; but Mr. Vernede, adds that the admission did not arrest the extension of the disease, for a few days (some four or five) afterwards a second case occurred in the person of a fellow-servant. This appears to be regarded as proving that proper disinfection had not been carried out. The inference is, however, hardly justified, for in view of the incubation period of measles, secondary attacks might have occurred at any time during the fortnight following on the first isolation, even in the face of the most efficient and complete measures of precaution. The *Port District* was carefully inspected during the year, and measures were taken to secure cleanliness of vessels and proper accommodation for the crews. No case of infectious disease was met with on board any vessel.

Penistone Urban District.—Dr. Watson reports that this district exhibits a diminished death-rate, an absence of enteric fever and diarrhœa, and a more manageable type of such epidemic disease as does appear. He is of opinion that the change is largely due to improved sanitary administration, to the introduction into nearly every house of a pure and wholesome water, and to the existence of ample means for flushing drains. Some years ago Penistone was reported on most unfavourably, and it still needs the completion of its system of drainage. A sum of £10,000 has already been spent in sanitary improvements, and it would be a great misfortune if, for lack of their completion, preventable disease should again appear.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns, 6113 births and 3731 deaths were registered during the week ending the 5th inst., being the first week of 1884. The annual death-rate in these towns (calculated on the estimated population in the middle of 1884) was equal to 22·2 per 1000, against 21·9 and 20·6 in the last two weeks of 1883. During the last quarter of 1883, the death-rate in these towns averaged 21·2 per 1000, against 22·1 and 23·0 in the corresponding periods of 1881 and 1882. The lowest rates in these towns last week were 12·1 in Norwich, 17·3 in Portsmouth, and 17·7 in Bradford. The rates in the other towns ranged upwards to 27·0 in Salford, 29·1 in Manchester, 29·9 in Preston, and 31·3 in Cardiff. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 473 and 413 in the two previous weeks, rose again to 447; they included 112 from scarlet fever, 103 from whooping-cough, 100 from measles, 51 from "fever," 30 from diphtheria, 28 from small-pox, and 23 from diarrhœa. These zymotic diseases caused the lowest death-rates last week in Portsmouth and Oldham, and the highest in Leeds and Derby. The highest death-rates from scarlet fever occurred in Leeds, Salford, Sheffield, and Newcastle-upon-Tyne; from whooping-cough in Huddersfield, Sheffield, and Bolton; from measles in Derby, Birkenhead, and Manchester; and from "fever" in Blackburn, Halifax, and Cardiff. The 30 deaths from diphtheria in the twenty-eight towns included 16 in London, 4 in Cardiff, and 2 in Birmingham. The 28 fatal cases of small-pox showed a considerable increase upon recent weekly numbers; 8 occurred in Birmingham, 7 in Sunderland, 6 in London, 6 in Liverpool, and 1 in Manchester. The number of small-pox patients in the metropolitan asylum hospitals, which had been 89 and 98 on the two preceding Saturdays,

further rose to 102 at the end of last week; 15 new cases were admitted to these hospitals during last week, against 29, 17, and 16 in the three previous weeks. The Highgate Small-pox Hospital contained 8 patients on Saturday last, two new cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 471, 391, and 355 in the last three weeks of 1883, were 387 last week, and 138 below the corrected weekly average. The causes of 106, or 2·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Plymouth, Leicester, Derby, and Cardiff. The proportions of uncertified deaths were largest in Hull, Newcastle-upon-Tyne, Huddersfield, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 21·1 and 22·1 per 1000 in the two previous weeks, rose to 25·4 in the week ending the 5th inst.; this rate exceeded by 3·2 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns ranged from 15·1 and 19·3 in Perth and Greenock to 29·5 and 35·7 in Aberdeen and Paisley. The deaths in the eight towns included 74 which were referred to the principal zymotic diseases, against 84 and 86 in the two preceding weeks; 18 resulted from whooping-cough, 13 from diphtheria, 13 from measles, 12 from scarlet fever, 9 from "fever," and 9 from diarrhœa. These 74 deaths were equal to an annual rate of 3·1 per 1000, which was 0·4 above the mean rate from the same diseases in the large English towns. The rates from these diseases in the Scotch towns ranged last week from 0·0 in Perth to 3·4 in Glasgow, 3·6 in Paisley, and 4·2 in Edinburgh. The 18 fatal cases of whooping-cough showed a further decline from recent weekly numbers, and included 12 in Glasgow and 4 in Aberdeen. Of the 13 deaths referred to diphtheria, also showing a considerable decline from the numbers in recent weeks, 7 occurred in Glasgow and 2 in Leith. The 12 fatal cases of scarlet fever also showed a decline; they included 6 in Edinburgh and 5 in Glasgow. Ten of the 13 deaths from measles were returned in Edinburgh, against 6 in each of the two previous weeks. Of the 9 deaths referred to "fever," 6 occurred in Glasgow and 2 in Edinburgh. The deaths attributed to acute diseases of the respiratory organs in the eight towns, which had been but 104 and 108 in the two previous weeks, rose to 145 last week, but were 18 below the number in the corresponding week of last year. The causes of 107, or more than 17 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 36·1 and 27·5 per 1000 in the last two weeks of 1883, was 28·7 in the week ending the 5th inst. The death-rate in the city during the fifty-two weeks of 18·3 averaged 29·2 per 1000, against but 20·4 in London and 19·2 in Edinburgh. The 193 deaths in Dublin last week showed an increase of 7 upon those returned in the previous week; they included 7 which were referred to scarlet fever, 4 to whooping-cough, 3 to "fever," 1 to diarrhœa, and not one either to small-pox, measles, or diphtheria. Thus 15 deaths resulted from the principal zymotic diseases, showing a further decline from the numbers in the four previous weeks, in which they fell from 28 to 16; they were equal to an annual rate of 2·2 per 1000, the rate from the same diseases being 2·5 in London and 4·2 in Edinburgh. The fatal cases of scarlet fever in Dublin, which had been 16, 8, and 6 in the three preceding weeks, were 7 last week. The 4 deaths from whooping-cough exceeded the numbers in recent weeks; whereas the 3 deaths referred to "fever" (including typhus, typhoid, and simple fever) showed a decline of 2 from those in the previous week. Seven deaths resulted from different forms of violence, exceeding the weekly average in 1883 by 2. The deaths, both of infants and of elderly persons, were more numerous than in the previous week. The causes of 30, or nearly 16 per cent., of the deaths registered during the week were not certified.

HEALTH REPORT OF CALCUTTA.

The report of the health officer of Calcutta, Surgeon-Major M'Leod, A.M., M.D., for the months of July, August, and September, 1883, shows that 1701 births took place, against 2746 deaths. Of the latter, fevers were answerable for 1049; cholera, 125; dysentery and diarrhœa, 328; and small-pox, 21; the remaining 1222 were assigned to miscellaneous causes. The quarterly death-rate per 1000 of the population was 22, against a decennial rate of 25·3. The number of vaccinations performed during the above-mentioned period was 358, against 548 in the corresponding quarter of the preceding year. The natives appear to object less to the practice of vaccination than to its being carried on in the rainy season. Valuable tables on meteorological observations, births, deaths, and other sections of State medicine are appended.

THE SERVICES.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major John Henry Hunt to be Brigade Surgeon, vice E. F. O'Leary, M.D., granted retired pay; Surgeon-Major William Robert Kerans is granted retired pay, with the honorary rank of Brigade Surgeon.

BOMBAY MEDICAL ESTABLISHMENT.—Surgeon-Major Charles Frederick Ogilvie, M.D., has been restored from the half-pay to the effective list.

ADMIRALTY.—The following appointments have been made:—Surgeon P. B. Bury, M.B., to the *Myrmidon*; Surgeon H. J. Madders, M.D., to the *Hector*, vice Bury; George Gray, M.D., to be Surgeon and Agent at Newcastle, Dundrum, and William's Harbour, vice Clarendon; Mr. Frederick W. Apthorp, to be Surgeon and Agent at Chichester Harbour, vice Dutton; Mr. Thomas Baron to be Surgeon and Agent at Killingholme; Staff Surgeon Thomas Conry, to Melville Hospital, vice Comerford; Surgeon W. M. Rae, to the *Dasher*, vice Conry; Surgeon Leonard H. Kellett, M.B., to the *Duke of Wellington*, vice Rae.

RIFLE VOLUNTEERS.—1st Argyll (Argyllshire Highland): James Hunter, Gent., M.B., to be Acting Surgeon.—3rd Devonshire: Acting Surgeon Thomas Wood Shortridge resigns his appointment.—2nd (South) Middlesex: Surgeon Francis Egan resigns his commission.—1st (Hallamshire) Volunteer Battalion, the York and Lancaster Regiment: Walter Hallam, Gent., to be Acting Surgeon.—3rd West Riding of Yorkshire: Thomas Whiteside Hime, Gent., B.A., M.B., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

"SUDDEN DEATHS DURING, BUT NOT FROM, CHLOROFORM NARCOSIS."

To the Editor of THE LANCET.

SIR,—Such headings as the above are so attractive, so apparently contain the pith of the whole matter, and give such sense of relief to the casual administrator of an anæsthetic, that an ordinary reader may receive them with the same *bona fides* as they are printed. Holding forth as I do to my students that no patient "ought to die from an anæsthetic," the word "during" can only take the meaning that may be given to it after an accident occurs. Surely in sleep-compelling it is better to watch your physiological effect than find too late your pathological cause. Cases of "fatty embolism of the capillaries of the lungs" are admittedly rare, yet fractures of the upper third of the long bones are comparatively frequent, at least in England; deaths from chloroform are too frequent all over the world, and, from evident reasons, very likely to be on the increase.

The two classes of patients, if one may so speak, who give the greatest anxiety during the administration of chloroform are very fat people and those of intemperate habits. Of the two, the latter are those who give the greater cause for anxiety to an inexperienced administrator, and the anxiety arises in the early time of the administration; if the substance be offered in excess, to control (the almost constant accompaniment of struggling that occurs in these cases) as quickly as possible, death is almost guaranteed. In such cases the administrator cannot present a proper percentage of chloroform vapour too slowly but persistently

at the same time. The disturbance which always supervenes, as before said, in the early stages must be looked for and carefully watched. This, to anyone who uses Skinner's "open inhaler," is most difficult to carry out. To present four drachms under four minutes on a Skinner's inhaler to an inebriate patient is enough to tempt not only "fatty embolism of the capillaries of the lung," but every other organ to join in the "dance of death." I cannot find that any case of "fatty embolism of the capillaries of the lung," if left alone, dies *suddenly*, or that the same untoward result awaits "hypercarbonisation of the blood." It is to ask the profession not to look for post-mortem causes of death that I write.—I am, Sir, yours obediently,

Brook-street, W., Jan. 1884. TOM BIRD.

ENLARGEMENT OF THE BURSA PATELLÆ IN CLERGYMEN.

To the Editor of THE LANCET.

SIR,—During the past year the three following cases have come under my care:—

A young man, about to take holy orders, consulted me in May last with sinuses in front of the knee-joint, the remains of a suppurated bursa patellæ, which had caused him much trouble and suffering for several weeks. The patient was put under ether, and the sinuses were freely laid open; recovery was complete in a fortnight.

A senior theological student who consulted me in October last had a painless enlargement of the bursa patellæ, brought on by careless kneeling. It was covered with iodine and was tender, with œdema around the joint. After rest and cooling lotions for three days, the aspirator was used, and three ounces of clear fluid were drawn off. Firm bandaging and rest completed the cure.

A clergyman, aged sixty-three, consulted me in December last about a slow painless swelling of the knee, which he had hurt lately; there was some bruising and œdema about the joint. After rest and cooling lotions two ounces of bloody fluid were drawn off and pressure applied; milder measures having failed, a large silk seton was passed through the sac. The part was then poulticed and the limb kept at rest. Recovery took place, with complete obliteration of the bursa, in a fortnight.

In all these cases there was a rough skin, with thickening over the lower part of the patella of the sound limb, caused by careless kneeling at devotions. It is strange that a disorder so common among housemaids should appear among the clergy, who should take care not to kneel without a proper cushion, or other convenience, easily obtained at the bedside of the poorest cottager, in the form of a folded up overcoat or rug. I am, Sir, yours truly,

Cambridge, Jan., 1884. GEORGE WHERRY, M.A.

SACCULATED BLADDER IN THE FEMALE.

To the Editor of THE LANCET.

SIR,—In THE LANCET of last week there appears an account of a case of sacculated bladder in the female, recorded by Mr. Cadge, who is good enough to refer to a case of mine which I exhibited before the Pathological Society in March last. If you could spare me a few lines there are one or two points in his remarks to which I should like to direct attention. In the first place, he says, "the report in the journals of this paper and discussion is very meagre"; but the full account of a case shown at the Pathological Society is never put in the journals, because it is always described *in extenso* in the Society's Transactions, and if Mr. Cadge will refer to the last volume, at page 146, he will find a full description of my case. Again, Mr. Cadge does not think the Guy's statistics represent the matter fairly, because a pathologist who examined every case carefully enough to give an opinion as to the sacculation would be "indefatigable." My only answer to this aspersion of the pathologists at Guy's is that those who made the post-mortems on which my statistics are based were the late Dr. Hilton Fagge and Dr. Goodhart, who are universally acknowledged to be indefatigable pathologists. Lastly, Mr. Cadge says of my case: "What I believe was meant was that stone and sacculated bladder in the female were never known to co-exist. This inference is, however, not correct." In the Pathological Society's Transactions I find my words are, "probably the only two causes for it are spinal disease and inflammation from neighbouring parts." Mr. Cadge should refer to my paper and see what I said, and not form a conclusion as to what I meant from what he confesses is a meagre report. I nowhere denied the possiblity of their co-existence. Furthermore, at the time I wrote my paper Mr. Cadge's case was not published, so that he can hardly urge that it was not correct to say that stone and sacculation were never known to co-exist. They were not at that time known to occur together on Mr. Cadge's own showing, for he says his case is the only one recorded.

I am, Sir, your obedient servant,

St. Thomas's-street, S.E., Jan., 1884. W. HALE WHITE, M.D.

RISKS INCURRED BY MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—I hope you will allow an old member of the profession space for a few words on those lamentable cases which too frequently occur, the last being that of Dr. Haffenden. Few men have practised long without on some one or other occasion having felt thankful for their narrow escape from some pitfall. But the worst kind of traps are those met with in our professional intercourse with women, such as have within a few months been the unfortunate cause of two suicides.

A gentleman of long and honourable career is suddenly and publicly charged with something which, however innocent he may afterwards legally prove himself to be, damages him for life, if it does not bring utter ruin. He is suddenly put on the same footing as an habitual criminal. The accusation is enough; mud has been thrown, and some of it will stick. The "charitable" world will think, even when acquitted, that some foundation existed for the charge, and that the accused has been cleverly pulled through.

The spirit of the English law infers that a man is to be considered innocent until he is proved to be guilty. What a delusion! In some cases the charge is enough, and some professional brother finds himself punished by the public, although not even convicted. I earnestly direct attention to this point. In the confidential and delicate cases in which the physician is daily engaged, he should be protected from being held up to public indignation on the mere statement of some foolish or hysterical woman. Such charges should be first heard *privately* by the magistrate. Equal justice would be done without flaunting the accusation before the public, and if no conviction followed, the accused would not be much hurt. Magistrates should also consider the stake at issue, and that when it comes to a matter of mere assertion, the word of a gentleman and member of an honourable profession should be of more value than that of a person who may have some object to gain and nothing to lose. The charge is so easily made; the accused is generally astounded at finding one or two innocent incidences worked up into condemnatory evidence—and another person is ruined. The medical profession is, compared with the legal and clerical ones, in a very defenceless state. Much of this is owing to the sleepy condition of our corporate bodies. They neither protect the profession as a whole, nor its individual members when in difficulties. But our corporations could and should do something in this matter. They should use their influence to bring about some change in the inferior courts of law to afford their members an honest protection in those cases which originate in the necessary privacy of professional intercourse. If things are allowed to go on without change for the better, I am convinced that the medical profession will deteriorate. Gentlemen of honour and culture will not willingly enter on a course where they may at any time be tripped up by the unsupported lies of worthless people. In the end the public will suffer by this deterioration; and as THE LANCET is extensively read by the public, I will conclude by leaving this point for their due consideration.

I am, Sir, your obedient servant,

Barcelona, Dec. 28th, 1883. HENRY WEEKES, F.R.C.S.

THE MEDICAL BENEVOLENT FUND.

To the Editor of THE LANCET.

SIR,—I have to acknowledge with most sincere thanks the following subscriptions and donations to the Medical Benevolent Fund, sent in answer to my appeal. I beg also

to thank many old subscribers who have taken my letter as a reminder, and have sent their subscriptions, sometimes with an extra donation.—Your obedient servant,

W. H. BROADBENT, Treasurer.

34, Seymour-street, Portman-square, W.

A. O. A., £100; Warrington Haward, Esq., £1 1s. (in addition to subscription); Dr. Connel, 10s. 6d.; Dr. Kinglake (in addition to subscription), £5; A. T. Pollard, Esq., £5; Brigade Surgeon Clarke, £1; Dr. B. Bramwell, £1 1s.; Dr. Bright (collected), £4 14s.; Dr. Collier, £1 1s.; Mr. Green, £1 1s.; A. Lattey, Esq., £1 1s.; W. A. T., 10s. 6d.; J. B. L., 10s.; C. A. Aikin, Esq., £5 5s.; "Thank Offering," £2 2s.; J. Cooper Forster, Esq., £20; R. Roxburgh, Esq., £1 1s.; Surgeon R.N., £1 1s.; Dr. J. C. Ross, £1 1s.; Dr. Rasch, £1 1s.; W. P. T., £1 1s.; Thomas Smith, Esq., £10 10s.; "In Memoriam," £1 1s.; J. Fosse Harding, F.R.C.S. (per G. C. Steet, Esq.), £5 5s.

LIVERPOOL.

(From our own Correspondent.)

HOSPITAL SUNDAY: THE FOURTEENTH ANNIVERSARY IN LIVERPOOL.

NEXT Sunday will, in accordance with the custom of thirteen years past, be observed as Hospital Sunday, when collections will be made in all the churches and chapels of the city and its suburbs for the Liverpool medical charities. The first Hospital Sunday was in 1871, after the surmounting of difficulties which it required almost superhuman efforts to overcome. The promoters of the movement were greatly assisted by the numerous articles which appeared in THE LANCET during the years 1869 and 1870, and which subsequently appeared, together with others, in pamphlet form. Great as were the difficulties to be surmounted, the result has been most successful. The proceeds of Hospital Sunday and Saturday have for some years averaged nearly £10,000 annually, while the working expenses are under 3 per cent. of the total sum collected. Our hospitals are greatly in want of support, and it is to be hoped that the collections of next Sunday will not show any falling off. Much of the foregoing success is due to the circumstance that we have only one committee for both the Sunday and Saturday collections. It is composed of an equal number of clergymen and laymen, so selected as to be thoroughly representative of all the various denominations on the one hand, and of the medical charities on the other. The Mayor is the chairman. The meetings are held at the Town Hall, and the greatest harmony has always existed from the first formation of the committee.

THE NOTIFICATION OF INFECTIOUS DISEASES.

The vexed question as to whether medical practitioners should or should not be compelled to notify all cases of an infectious nature to the medical officer of health continues to be a fruitful source of discussion, and, it must be added, of contention. It lately culminated in a debate before the Health Committee. The medical officer of health (Dr. Stopford Taylor) had made a statement to the effect that Dr. Kellett Smith, a local practitioner, while attending cases of scarlatina at a milk-house did not take the necessary precautions as to isolation, and that in consequence the disease was spread to several houses. Dr. Smith proved to the satisfaction of the committee that, failing to secure the removal of the first patient (a child) to the hospital, which he strongly urged the parents to do, he took the most elaborate precautions not only to isolate the child, but also the house, from the milk department. He also drew up a notification to the School Board to explain the cause of the child's absence from school as being due to "malignant scarlet fever," which he had reason to believe would reach Dr. Taylor in due course, but unfortunately it was not sent. Dr. Smith also proved, by most careful and elaborate inquiries, that there were over 200 children who had never had scarlatina who were supplied daily with milk from this dairy, and not one of them was affected. The general feeling among the medical profession here is in favour of compulsory notification by the householder when informed by the medical attendant that the case is infectious. But there is an unconquerable feeling against compelling medical men to perform, in addition to their other duties to their private patients, one which would be invidious, unprecedented, and wholly unnecessary.

INTERESTING CASE OF STRANGULATED HERNIA SUCCESSFUL REMOVAL OF EIGHT INCHES OF INTESTINE.

Mr. Banks has under his care at the Royal Infirmary a young man who was admitted with strangulated inguinal hernia. About eight inches of small intestine were found to be gangrenous, and the bowel was cut into by the neck of the sac. The gangrenous bowel and a wedged-shaped piece of omentum were removed, the cut ends of the bowel were united by sutures, and returned into the abdominal cavity after division of the stricture. The sac was stripped up and ligatured, and the patient has made a complete recovery. At the present time, eight weeks since the operation, he is in all respects perfectly well.

NEWCASTLE-ON-TYNE.

(From our own Correspondent.)

EXPERIENCES OF A SUNDERLAND SMALL-POX HOSPITAL BY A PATIENT.

THE local papers have printed and commented upon the letter of a Sunderland patient who had the misfortune to contract small pox, and the further misfortune to be removed for treatment to the workhouse hospital, not as being a pauper, but owing to the absence of any better provision in the borough for the hospital treatment of infectious diseases. The letter is admitted to be *bonâ fide*, and while it discloses a state of things in this so-called "hospital" discreditable to the borough, admits very freely the kindness and attention given to the patients by the nurses and medical staff. The defective arrangements of the hospital have been fully pointed out by Dr. Mordey Douglas and others, but it is well to listen to what the patient has to say after some weeks' experience in the "house." "After you arrive at the hospital you get out and walk into a wooden building, and the first thing that meets your gaze is a lot of iron beds, and a number of patients dressed more like ragamuffins than respectable beings. Some wear clothes about three times too big, and others garments too small. You are surrounded by these unfortunate patients as soon as you get in, and they ask you questions. Next you are asked to strip in front of these patients, and your clothes are taken away except your shirt and body flannel. Then you have to walk a matter of sixty feet along a cold room, and go into a bed which consists of a straw mattress not over well made, and a ragged blanket on the top; sometimes the straw is protruding from the blanket; then you have a blanket to cover you, and also a quilt and a 'nice soft' straw pillow. The cold is so severe after coming from your comfortable home that it is enough to perish you. Many times the patients are four or five nights in the place before they can get to sleep for the cold. The ward contained sixteen patients, and there were only two chairs, one form, and one night-chair. Thus only three patients can have seats at one time, and when the food is brought in the chairless patients have to put their food on the floor at their bedsides. To further explain this objection, it is necessary to state that a patient's milk is brought in a tin pot, and put down by his bedside. In these cases very often a patient's eyesight is temporarily gone, and the expectorating fluid from his mouth keeps him spitting over the bedside; oftener than not the fluid thus spat out goes into the milk instead of the spittoon. This is caused by the patient not having a chair at his bedside. The one night-chair had to accommodate sixteen patients." The food and bathing arrangements—if the latter can be called "arrangements," when it takes, owing to deficient water-supply, from 8 A.M. to noon to bathe six patients, inclusive of the use amongst the whole number of "one towel!"—are also described. The patient further says that "the building has too much ventilation—in fact, it is all ventilation. At each end there is a square of about four feet with holes about two inches square, making it like a grating. Holes are also bored all along the top part of the building and likewise at the side; these are open night and day in all weathers. On the night of the last gale and thunderstorm there was so much wind in the building that it blew out nearly all the gas-lights, and we expected every minute that the building would go down."

THE TAX ON CARRIAGES.

A public meeting, convened by the Mayor, who is a general practitioner, was held on the 4th ult., and

there was a large representative attendance. Mr John Philipson, of the firm of Atkinson and Philipson of this city, moved: "That the annual carriage tax is a heavy burden on carriage manufacturing and accessory trades." The revenue returns proved that the number of carriages in use had decreased by 14,000. People abstained from keeping carriages owing to the tax, which also prevented second-hand carriages being kept on hire at road-side stations and seaside resorts, and was a great hardship on doctors and others to whom carriages were a necessity in the pursuit of their various occupations. The motion was carried unanimously, as were others couched in a similar spirit.

NEWCASTLE THROAT AND EAR HOSPITAL.

The report of this institution shows that during the past year about 1200 patients had been admitted to its benefits. The voluntary payments of patients had amounted to the important sum of £147, while nearly 500 patients had been treated entirely free. Owing to the retirement of Dr. Garson, who has received an appointment in the neighbourhood of Liverpool, some changes had been made in the medical staff. Dr. Foggin has taken Dr. Garson's post, and Dr. J. G. Housman had been appointed assistant-surgeon, attending with the senior surgeon on Saturdays for out-patients.

NEWCASTLE HOSPITAL FOR INCURABLES.

The appointment of medical superintendent to this new hospital will be shortly made by our Corporation, and as the office has a salary and does not interfere with practice, many applications have been sent in and canvassing has been very active for the post. I believe that it will lie between two surgeons of our city—namely, Dr. R. Young and Mr. J. A. Angus; but the latter, having been first in the field, will probably succeed.

Newcastle-upon-Tyne, Jan. 9th, 1884.

SCOTTISH NOTES.

(From our own Correspondent.)

SANITARY PROTECTION ASSOCIATION FOR DUNDEE.

As a result of the success attending these Societies wherever founded, and of the recent remarkable exposure of insanitary houses in Dundee made by Dr. Anderson, the medical officer of health, it is proposed that a Sanitary Protection Association for Dundee and its neighbourhood should be at once formed. The organisation is chiefly in the hands of Professor Ewing, of University College, and as many of the leading citizens are interesting themselves in the matter, and Mr. Ewing has had special opportunity of becoming practically acquainted with the working of such a Society, there should be no room for failure. It might be suggested that not only places in the immediate neighbourhood of Dundee, but such towns as Perth, Arbroath, Forfar, &c., should be asked to join the movement. A local committee in each of these towns would be a source of strength to the central body, and a means of obtaining the benefits of a Society which can only be carried on satisfactorily in places of large population. The revelations of complete sanitary destitution, even in the houses of the wealthy, made by experienced and trustworthy inspectors, should be sufficient to induce all who have regard for safety and health to take advantage of protection when offered them at a cheap rate, or, indeed, for the matter of that, at any price.

THE PROPER AGE FOR COMMENCING SCHOOL LIFE.

On this subject Dr. Sommerville of Galashiels read a suggestive paper at the Educational Congress held there last week. He feared that, instead of good resulting from the commencement of school life at from three to five years of age, much mischief was occasioned, and that children should be encouraged for two or three years longer to grow as nature and natural instinct would have them. By the present system spontaneity was lost, the atmosphere was not pure enough for the children to breathe, and, however varied were the lessons, the limbs were "cribbed, cabined, and confined." He thought it little use to teach a young child ordinary lessons for more than one hour per day, and that the practice of keeping infants from three to six hours in school was decidedly harmful. The usual means taken were only effectual in ruining the health of the child, and making it in other respects a useless creature. It seemed to him that from seven until thirteen years of age was ample enough time for learning everything valuable that a child usually learned at inspected schools; and that, if spelling were reformed, the time spent in teaching this and the rules of grammar might be devoted to bringing the facts of nature before the pupils. Except from the Government inspector present the paper received a favourable criticism. In regard to poorer parts of large towns, it was argued that children should be caught up as early as possible and saved from the moral and physical pollution to which they were subjected in their homes. There will be general agreement among medical men with the main contentions of Dr. Sommerville, as it is abundantly evident that a rapidly growing brain should not be engaged in active work daily for many hours. It is probable that a large portion of the time actually passed by infants in school is not given to continued work, and that these wasted hours would be more profitably spent in the playground. Even an hour a day of actual teaching would equal the work often done throughout the day; and if the infants could be taken at once and disposed of by the teachers they might be confined but little beyond the period desiderated by Dr. Sommerville.

MR. LOWELL AND ST. ANDREWS UNIVERSITY.

Considerable disappointment is felt, not only by the students of St. Andrews, but by Scotland, that the susceptibilities of the American Government have necessitated the resignation of Mr. Lowell as Lord Rector of this ancient university. In intimating his withdrawal, Mr. Lowell expresses the hope that he may have it in his power to visit St. Andrews, and address the students and members of the university, which Principal Tulloch, on behalf of the Senatus, has invited him to do. Mr. Lowell states that he feels warmly the honour which has been so spontaneously conferred upon him, as well as the friendliness with which all parties in the university were disposed to welcome him as Lord Rector, if the difficulty referred to had not presented itself. I have not heard what course will be followed in the circumstances, which are entirely new in the experience of the Scottish universities since the office of Lord Rector was created.

PARIS.

(From our Paris Correspondent.)

THE REMOVAL OF NIGHT SOIL.

HITHERTO the system of scavenging in Paris has been but imperfectly carried out. The refuse matter of each house used to be deposited in the street after 10 o'clock at night, where it lay till the next morning, when it was carted off by scavengers. This was found to be a great nuisance; and a new order from the Prefecture of Police has just been published altering this state of things. The refuse matter is to be deposited in receptacles for the purpose early in the morning only, and is to be immediately removed by the municipal scavengers. Any infringement of this regulation by the proprietors or porters of houses, who will be held responsible, will be severely punished. But this new arrangement does not meet with the satisfaction of the "chiffonniers," who have petitioned the Prefect of Police to allow matters to remain as before, as the new regulations would be simply ruinous to them. The fact is, rag-gathering would appear to be not an altogether unprofitable calling, as cases are related where some of these people have actually died in comparative wealth. Not long ago a "chiffonnier," at his death, was found to possess 100,000 francs (£4000), and yet he lived in the most abject misery.

ANIMAL *v.* HUMAN LYMPH IN REVACCINATION.

Dr. Bucquoy lately submitted to the Academy of Medicine a work by Dr. Armaingaud on the Comparative Value of Animal and Human Vaccine Lymph in cases of Revaccination. Dr. Armaingaud gives the results he obtained by the revaccinations he performed at the Colleges of Bordeaux, which confirmed those obtained by him and M. Bronardel at the revaccinations at the College of Sainte-Barbe in Paris in 1870. Dr. Armaingaud practised 262 revaccinations with animal lymph and fifty-nine with human lymph, and the results were a proportion of 30 per cent. successful with animal lymph and 51 per cent. with human lymph. Dr. Armaingaud, however, observes that these results refer only to the physical character of the pustules, and that judgment should

be deferred until it could be ascertained by further experiments as to what extent animal lymph would confer immunity against small-pox, and whether equally good results are obtained in adults and children as in new-born infants. Dr. Bucquoy observed that in the revaccinations he had performed at the College of Sainte-Barbe during the last ten years he never had a single case of small-pox. It is, however, unfortunate that Dr. Bucquoy does not specify the kind of lymph he employed.

Paris, Jan. 8th, 1884.

THE HIND FUND.

THE following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—

Cross, H. R. O., Esq., A.M.D. ...	...	£1	1 0
Cross, Dr. Robert	...	1	1 0
From India (per T. d'O. Partridge, Esq.)		5	5 10
Hoffmeister, Dr. W. C.	...	1	1 0
Lush, Dr. Wm. J. H.	...	1	1 0
Metcalfe, G. E. G., Esq.	...	1	1 0
Swanwick, Eustace M., Esq. ...	...	2	2 0

Subscriptions may be paid to Dr. Richardson, F.R.S., (chairman), 25, Manchester-square; John Tweedy, Esq., F.R.C.S., 24, Harley-street, Hon. Treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower-street; and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe-gardens, Hon. Secretaries; or to Messrs. Coutts & Co., Strand.

Obituary.

THOMAS RIVINGTON WHEELER, F.R.C.S.

IN our obituary of Dec. 29th we recorded the death, suddenly, at Ramsgate, of the above-named gentleman, who for some years past had acted as Secretary to the Court of Examiners of the Society of Apothecaries and also Secretary to the Board of Examiners in Arts. The late Mr. Wheeler was well known in the ranks of the profession, amongst whom his attainments and amiability of character secured him the friendship and esteem of not a few; and his loss will be sincerely felt and recognised.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on Monday, Tuesday, and Wednesday last:—

W. G. Anglin, Kingston, Canada; W. F. Miller and J. W. Barret, Melbourne, Australia; R. Stopford, Liverpool; E. M. Hewish, Toronto, Canada; W. E. Facey, G. W. Roll, A. S. Percival, and E. L. Fox, Cambridge; G. H. Denike, Kingston, Canada; M. Elayatamby, Ceylon; W. V. Morgan, St. Bartholomew's Hospital; W. H. Yeld, W. S. Cox, and A. O. Balshaw, Owens College, Manchester; W. Biggam, R. B. Robson, H. Renney, and T. Morton, Newcastle-upon-Tyne College of Medicine; C. Mortlock, St. George's Hospital; W. H. Cossens, Liverpool and Cambridge; A. R. Macmillan, Edinburgh; J. Good, Charing-cross Hospital; H. G. Hughes and F. W. Gordon, Dublin; J. B. Webb and H. A. Spencer, Bristol; A. L. Williams, Liverpool; P. P. Baly, Birmingham; H. Anderson, Belfast; A. W. Riddell and F. L. Davis, Bristol; C. Nicholson and F. Jubb, Leeds; H. Massey, Dublin; F. C. Servaes and C. N. Mason, Cambridge; H. C. Coe, New York; F. S. P. Lely, C. E. Dodd, and W. B. Caley, Liverpool; A. King, Charing-cross Hospital; C. J. Deyns, Middlesex Hospital; W. B. Colquhoun, Guy's Hospital.

The Library of the College will be closed on the 18th inst. for the purposes of the examinations.

APOTHECARIES' HALL.—The following gentlemen passed the examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 3rd:—

Bowling, George Augustus Lovelace, Sewardstone-road.
Hatchett, Frederick William, Upper Cheyne-row, Chelsea.
Murray, William, Wray-crescent, Tollington-park.
Vogan, James Norman, St. Bartholomew's Hospital.

HER MAJESTY has, through General Ponsonby, forwarded a donation of £25 to the Aberdeen Hospital for Incurables.

THE Local Government Board for Ireland have sanctioned an increase in the salaries of the medical officers of the Macroon Union.

VACCINATION GRANT.—The following gentleman has received the Government grant for successful vaccination:—Mr. W. Budd, Southernhay.

THE JAFFRAY SUBURBAN HOSPITAL.—The sum subscribed to the endowment fund, says the *Birmingham Medical Review*, now amounts to £21,297.

ON the 6th ult. a St. John Ambulance Asssociation centre was inaugurated at Hamilton, Bermuda, an influential committee being chosen. A centre has also been recently formed at Port of Spain, Trinidad.

THE Bombay Municipal Council on the 8th ult. passed a resolution thanking the medical officers who had been engaged in the very arduous duty of fighting cholera in Bombay for their zeal and untiring efforts to check the disease.

AT the quarterly meeting of the directors of the Naval Medical Supplemental Fund, held on the 8th inst., Sir W. N. E. Smart, K.C.B., M.D., Inspector-General, in the chair, the sum of £86 was distributed amongst the several applicants.

BEQUESTS, &C.—The late Mr. B. Ball bequeathed £1000 each to the Rotundo Lying-in, Mercer's, Adelaide, and the City of Dublin Hospitals.—The late Rev. Charles Allen bequeathed £100 to the Belfast Royal Hospital.—"A Friend" has given £100 to the Dublin Throat and Ear Hospital.

SOME few months ago we published an appeal on behalf of the late Dr. C. Brown of Eastbourne. A list of the subscribers has now been published, from which it appears that £1298 was the whole amount subscribed, which, after deducting the necessary expenses, has left a very handsome balance to be invested on behalf of the widow and five children.

LODGING-HOUSES IN PARIS.—The Prefect of Police, M. Camescasse, has issued some fresh regulations respecting the poorer kind of lodging-houses in Paris. The minimum height for rooms is two and a half metres, and the cubic space fourteen cubic metres per occupant. Walls and floors are to be submitted to specified methods of cleansing, and proper means of ventilation provided. Cellars are not allowed to be used as dwellings.

THE DRAINAGE OF BRENTFORD.—The new works for the drainage and disposal of the sewage of Brentford have just been completed, to the satisfaction of the Local Board. The sewage is pumped from a collecting well in the town meadow to tanks situated a mile away, where it is deodorised and precipitated, the effluent water being discharged into the river. The success or otherwise of the plan will be watched with interest.

ACTION AGAINST THE CARMARTHEN BOARD OF GUARDIANS.—It is stated that Dr. Rice Howell of St. Clears has commenced an action against the Carmarthen Board of Guardians for £10,000 damages, the cause of complaint being that the Board in 1844 represented that he was unfit for his duties as medical officer of St. Clears district, in order to obtain the sanction of the London Board for the appointment of Dr. Beattie to that office.

MANCHESTER MEDICAL SOCIETY.—The following office-bearers for 1884 were elected at the annual meeting held at the Owens College on Jan. 9th:—President: Dr. D. J. Leech. Vice-Presidents: Drs. J. A. Ball (Stockport), J. Dreschfeld, J. Hardie, T. Jones. Treasurer: Dr. D. Little. Secretary: Dr. C. J. Cullingworth. Other members of Committee: Drs. A. M. Edge, Arthur Gamgee, C. E. Glascott, A. Godson, J. D. Mann, S. Moritz, H. S. Renshaw (Sale), J. Ross, F. A. Southam, W. Yeats, and Messrs. A. E. Sutcliffe, and J. Parks (Bury)

SUNDERLAND HOSPITAL FOR SICK CHILDREN.—The Ladies' Committee of this hospital at a recent meeting formed a Sanitary Committee with the view of carrying out more fully than has hitherto been done the second object of the hospital—viz., the diffusion of knowledge regarding the

management of children both in health and disease. The means by which this Committee will endeavour to extend and popularise sanitary knowledge and carry out sanitary work are the distribution of tracts among the lower classes, the collection of money for sanitary improvements, the delivery of free popular lectures on matters relating to health, and the instituting of mothers' meetings and classes of adult girls for the delivering of sanitary and domestic instruction.

THE Greenwich District Board of Works have granted a pension of £112 10s. to Mr. Pink, on his retirement, in consequence of failing strength, from the post of medical officer of health.

SEVERAL of the City companies have subscribed towards the expenses of the forthcoming International Health Exhibition. The Corporation has given £5000 and guaranteed £10,000.

MILK-SUPPLY.—A resolution has been passed by the St. Pancras Vestry, appointing a deputation to wait upon the Lord President of the Privy Council, asking that all farms from which milk is sent to London and other towns shall be from time to time inspected.

UNIVERSITY OF CAMBRIDGE. — The following pointments have been made to the office of Demonstrator in accordance with the recommendation of the General Board of Studies:—Demonstrator in Botany, Walter Gardiner, B.A., Clare. Demonstrator in Physiology, Senior, A. Sheridan Lea, M.A., Trinity; Junior, W. D'Arcy Thompson, B.A., Trinity.

ST. LUKE'S HOSPITAL, SHANGHAI.—The fifteenth annual report of this hospital, specially intended for the treatment of Chinese patients, has been recently issued, and is a record of continued progress. During the past year 21,009 patients were treated at the hospital, amongst them being 149 foreigners. Of the total number treated, 330 were in-patients, and 20,679 out-patients.

DUBLIN MEDICAL STUDENTS' CLUB.—The first annual report of this Club has been recently issued, and it is satisfactory to learn from it that the affairs of the Club are in a prosperous condition. The number of members is now 143, and the temporary premises which have hitherto sufficed for the needs of the Club, being now found inadequate, a larger and more convenient building is being sought for.

THE TUNBRIDGE WELLS WATER-SUPPLY. — At the monthly meeting of the Local Board of the Tunbridge Wells Improvement Commissioners on the 2nd inst., an analysis by Dr. Meymott Tidy of the water of a spring from which it was proposed to procure an extra supply for the town was submitted. Dr. Tidy stated that the water was entirely unfit to be used as a supply for drinking, and that, as it contained evidences of extensive sewage contamination, it might at any moment be the cause of serious disease.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—From the recently-issued annual report of this institution it appears that, during 1883, 2230 in-patients were admitted and 234 out-patients received treatment. The number of in-patients is larger than that in any previous year, and exceeds the number of patients received during 1882 and 1881 by 374 and 628 respectively. The average number of patients daily resident in the hospital has been 145·2. The financial condition of the institution is fairly satisfactory. The report is accompanied by a classified summary of the work done in the hospital during the past year.

AT an inquest held by Dr. Danford Thomas on the 22nd ult. on the body of a child, who died from exhaustion and shock following burns on the body, who had been transferred from the London Hospital to the Asylums Fever Hospital at Hampstead, the jury added to their verdict of accidental death the following rider:—"And the jurors having heard in evidence that after the now deceased child had been removed to the Asylums Fever Hospital at Hampstead, the parents were unable to ascertain to which of the five London fever hospitals the child had been removed, whereby the parents were put to a vast deal of trouble and vexation; and they recommend that the authorities of the London Hospital, where the said child was taken, should accurately ascertain to which of the Metropolitan Asylums Hospitals the patients are transferred, in order that friends and relatives could procure the information required without delay."

SANITARY INSPECTORS AND SANITARY AUTHORITIES.—At the monthly meeting of the Association of Public Sanitary Inspectors on the 5th inst., a discussion took place on two papers which had been read at a previous meeting, one on the position of the sanitary inspector, and the other on his tenure of office. A resolution declaring it desirable that the position of the metropolitan, urban, and rural inspectors should be assimilated was adopted, and also another declaring it to be expedient that the appointment of all officers should be approved by the Government sanitary authority, and that no officer should be dismissed by any local authority without final appeal to the Government sanitary authority.

UNIVERSITY OF ABERDEEN.—MEDICAL BURSARIES.—On the report of the Medical Faculty, the following nominations to bursaries were approved by the Senatus at a recent meeting:—*Thomson Medical Bursaries* (tenable for three years)—George Finlay, M.A., 1st; Cresswell F. White, 2nd; Joseph Williams, 3rd. Tenable for two years—Alexander Simpson, M.A., 1st; John Stuart Davidson, 2nd; George Nicol Henry, 3rd. Tenable for one year—James Will, 1st; Joseph Anderson, 2nd; William Robertson, M.A., 3rd. *Marr and Watt Bursaries*:—Donald George G. Macdonald and James Richardson Anderson. The directors of the Glasgow Aberdeenshire Association have agreed to present Robert Morrison to the bursary given by the said Association.

THE BOWER AND KEATES CASE.

THE Secretaries desire to remind the members of the profession that the list of subscriptions to the Indemnity Fund was closed on Jan. 5th. They also wish to state that the secretarial work will be greatly facilitated if those intending to sign the memorial will do so and return it to the College of Physicians before Saturday, the 19th inst.

In reply to many letters, it seems necessary to point out that the acknowledgments of subscriptions in the journals cannot be brought up to date of publication owing to the large number of letters received and the pressure of space.

It may be of interest to state that copies of the statement were sent out by the Committee to members of the profession residing in the United Kingdom whose addresses appeared in Messrs. Churchill's Directory for 1883, their number being about 18,500, and in reply to these 1662 letters were received up to Friday, Jan. 4th (the date to which this week's list is brought), enclosing subscriptions, also 253 letters enclosing signatures to the memorial; 454 were returned through the dead-letter office, of these 320 were stated to have gone away and left no address, 74 were deceased, and 60 declined to receive the letters; these, however, were all redirected envelopes.

The following contributions (fifth list) were received up to Friday, Jan. 4th, the remainder will be acknowledged as soon as possible.

(Signed)

F. A. MAHOMED.
R. W. BURNET.

A. E. Durham, F.R.C.S., £10 10s.; Sir W. Bowman, £5 5s.; G. T. Gream, F.R.C.S., £5 5s.; H. Rickards, M.D., £5 5s.; G. O. Rees, M.D., F.R.S., £3 3s.; F. T. Roberts, M.D., £3 3s.

The following have sent two guineas each:—

H. M. Baker, F.R.C.S.; J. Brockwell, Esq.; R. B. Carter, F.R.C.S.; T. A. Cott, M.A.; Charles Coates, M.D.; W. H. Freeman, Esq.; W. C. Grigg, M.D.; W. J. Harris, Esq.; Herefordshire Medical Association; Grally Hewitt, M.D.; Charles Higgens, F.R.C.S.; Messrs. Kellock and Reynolds; J. P. Langshaw, F.R.C.S.; G. Lund, M.D.; G. Liebtenberg, Esq.; H. Osborne, Esq.; G. V. Poore, M.D.; F. H. Pye-Smith, M.D.; R. H. Semple, M.D.; E. H. Sieveking, M.D.; S. P. Sharkey, M.D.; Pugin Thornton, Esq.; M. H. H. Vernon, Esq.; F. Weber, M.D.; A. Willett, F.R.C.S.; E. J. Winterbottom, Esq.

Messrs. Taylor and Dunbar, £1 10s.; M. Brownfield, Esq., £1 5s.

The following have sent one guinea each :—

W. A. Adams, F.R.C.S.; J. F. Anderson, M.D.; F. Argles, Esq; Messrs. Ashurst, Tucker, and Smith; C. E. Baker, Esq.; A. E. Barker, F.R.C.S.; F. Barnes, M.D.; R. Barwell, F.R.C.S.; H. C. Bastian, M.D.; Adam Bealey, M.D.; Marcus Beck, M.B.; C. T. Blackman, Esq.; J. S. Bolleston, Esq.; Percy Boulton, M.D.; Essex Bower, M.D.; Henry Batt, Esq.; Thos. Bridgwater, M.B.; J. S. Bristowe, M.D.; Messrs. Brookes Bros.; C. T. Brookhouse, M.D.; R. Brown, Esq.; R. Brown, F.R.C.S.; F. G. Brownholme, M.D.; C. Budd, M.B.; J. E. S. Burroughs, Esq.; S. S. Burt, Esq.; T. C. Cade, Esq.; C. C. Carter, M.D.; W. Cayley, M.D.; E. Chaffers, F.R.C.S.; F. H. Champneys, M.B.; I. D. Chapman, M.D.; E. F. Chinery, F.R.C.S.; R. H. Clay, M.D.; W. F. Cleveland, M.D.; E. M. Cooke, M.B.; J. Coolerey, Esq.; E. H. Cree, M.D.; J. Croft, F.R.C.S.; M. Davis, M.D.; W. H. Day, M.D.; W. H. Dickenson, M.D.; W. A. Dingie, Esq.; A. R. Dodd, Esq.; H. S. Donkin, M.B.; C. H. Drake, Esq.; T. Eastes, M.D.; J. Fairbank, Esq.; Wm. Fairbank, Esq.; E. A. Fardon, Esq.; Sir J. Fayrer, M.D.; J. R. Fielding, Esq.; C. E. Fitzgerald, M.D.; A. Freer, Esq.; C. C. Fuller, F.R.C.S.; R. Fyson, Esq.; F. J. Gant, F.R.C.S.; F. H. Gervis, Esq.; J. R. Gibson, F.R.C.S.; C. Gidson, M.D.; F. W. W. Goodsall, M.D.; W. Goodson, Esq.; F. C. G. Griffin, M.B.; F. de H. Hall, M.D.; J. Hardie, M.D.; H. Harrison, Esq.; T. W. Hasselhurst, Esq.; R. Heath, M.D.; F. H. Hodges, F.R.C.S.; C. Holding, F.R.C.S.; T. F. Hopgood, Esq.; T. A. J. Howell, Esq.; W. P. Huggard, M.A.; H. S. Hughes, Esq.; J. R. Humphreys, F.R.C.S.; G. M. Humphry, M.D.; H. J. Hunt, Esq.; Evan Jones, Esq.; J. Jones, Esq.; J. B. Kennedy, Esq.; G. R. Lake, Esq.; Chas. Lewis, Esq.; H. R. C. Litchfield, Esq.; R. Clement Lucas, F.R.C.S.; A. V. Mahan, M.B.; W. McCheane, F.R.C.S.; M. M. McHardy, F.R.C.S.; F. B. Mallet, M.D.; F. Manser, Esq.; N. D. Markham, M.D.; C. H. Marriott, M.D.; C. H. Martin, M.D.; R. Martin, M.D.; H. H. Massey, Esq.; J. A. D. Miller, Esq.; F. D. Miller, Esq.; A. B. R. Myers, Esq.; Messrs. Newman and Newman; W. O'Donnell, Esq.; S. Owles, F.R.C.S.; G. Pearce, M.D.; T. S. Palmer, M.D.; F. Peirce, M.D.; A. Perigal, M.D.; O. Pemberton, F.R.C.S.; Sir H. A. Pitman, M.D.; G. H. Powell, Esq.; L. L. Powell, Esq.; J. S. Ranking, M.D.; T. Rayner, M.D.; J. C. Roberts, Esq.; W. B. Robertson, M.D.; E. T. Roe, M.D.; A. Roper, Esq.; J. Harris Ross, M.D.; B. Roth, F.R.C.S.; Jas. Riley, Esq.; Geo. Roper, M.D.; J. K. Sampson, Esq.; A. E. Sansom, M.D.; L. W. Sedgwick, M.D.; H. Sewell, Esq.; J. Shaw, M.D.; D. Shier, M.D.; T. Wood Shortridge, Esq.; P. H. Simpson, F.R.C.S.; S. H. Skakespeare, F.R.C.S.; Messrs. Smart and Moore; Alder Smith, F.R.C.S.; W. H. Smith, Esq.; E. Snell, Esq.; R. Southey, M.D.; E. J. Spitta, Esq.; Messrs. W. S. W. and J. E. Square; J. S. Stocker, M.D.; J. M. Stothard, Esq.; H. G. Sutton, M.D.; J. Sykes, M.D.; Chas. Taylor, M.D.; Frederick Taylor, M.D.; Herbert Taylor, M.B.; John Taylor, Esq.; Thos. Taylor, F.R.C.S.; W. B. Taylor, M.R.C.S.; E. Tegart, Esq.; M. Thomas, Esq.; Disney L. Thorp, M.D.; M. Tonge, M.D.; W. C. Toulmin, Esq.; J. Tweedy, F.R.C.S.; C. E. Underhill, M.B.; J. Waggett, M.D.; A. D. Walker, M.D.; W. D. Watheu, Esq.; W. Weir, M.B.; — Wallace, Esq.; C. A. West, M.D.; T. Whipham, M.D.; W. H. White, M.A.; D. M. Williams, Esq.; E. Woakes, M.D.; R. H. Woodhouse, Esq.; J. C. Worthington, Esq.; E. Percival Wright, M.A.; W. T. Wyatt, M.A.; E. Williams, Esq.; W. B. Young, Esq.

The following have sent one pound each :—

George Burn, M.B.; W. G. Church, F.R.C.S.; F. D. Dyster, M.D.; Messrs. A. and W. Eddowes.; W. M. Harmer, Esq.; A. C. E. Harris, M.B.; F. W. Humphreys, F.R.C.S.; Hermann J. Jones, M.D.; W. H. K. Kane, M.D.; D. Kennard, Esq.; R. McDonnell, M.D.; J. E. Tuxford, Esq.; J. F. Walker, Esq.; G. M. Whitehead, Esq.; C. T. Wickham, Esq.

W. L. Mackesey, Esq., fifteen shillings.

The following have sent half a guinea each :—

J. Ackery, Esq.; E. Cresswell Baber, M.B.; M. Balding, M.D.; M. Benoly, M.D.; J. Bevan, M.B.; C. Y. Biss, M.B.; T. Bowling, Esq.; C. J. Bracy, M.B.; H. M. Brewer, Esq.; J. Braithwaite, M.D.; H. Briggs, Esq.; J. Bunny, M.D.; J. B. Bunny, Esq.; R. E. Carrington, M.D.; E. Child, Esq.; R. M. Chisholm, Esq.; G. Coates, M.A.; W. S. Colby, Esq.; J. B. Caskie; J. G. Creasy, Esq.; R. Creamer, Esq.; John Crew, Esq.; G. C. Dale, M.D.; W. J. Daniel, Esq.; R. Davidson, M.B.; De la Cowe, M.D.; F. Dawtrey Drewitt, M.D.; J. E. Elderton, Esq.; J. J. Emerson, Esq.; Chas. Firth, M.D.; J. C. Fish, M.D.; John Forrest, M.D.; Geo. C. Franklin, F.R.C.S.; R. L. Freer, Esq.; J. C. Galton, M.A.; R. E. Gaye, Esq.; W. Kitto Giddings, M.D.; R. W. Goldie, Esq.; T. Stokes Guppy, M.D.; A. H. B. Hallowes, Esq.; A. Harvey, M.D.; R. W. Henderson, Esq.; G. Jackson, F.R.C.S.; Osborne Johnson, Esq.; F. W. Jordan, Esq.; J. S. Kane, B.A.; Norman Kerr, M.D.; R. S. Kidd, Esq.; G. Lamb, Esq.; J. W. Lane, M.D.; J. Leigh, F.R.C.S.; C. Lovezrove, Esq.; Luke Newry, Esq.; H. S. Leverton, Esq.; F. F. Lloyd, Esq.; J. McClelland, M.D.; J. Macfee, M.D.; A. Matcham, Esq.; G. A. Meaden, Esq.; J. Miller, M.D.; J. R. Mill-ome, M.D.; G. R. Morgan, Esq.; R. Paramore, Esq.; T. D. Patmore, Esq.; — Perkins, Esq.; F. S. Pilkington, Esq.; H. F. M. Pope, Esq.; Rees Powell, Esq.; B. L. Powne, Esq.; D. G. Prothero, M.D.; Chas. Puzey, Esq.; John Rae, Esq.; J. M. Randle, Esq.; T. Richardson, Esq.; W. E. Robbs, M.B.; W. R. Rogers, M.D.; G. Philip Rugg, M.D.; A. Shinton, Esq.; W. P. Shinton, Esq.; Simeon Snell, Esq.; A. Storrs, M.D.; D. T. Thomas, Esq.; W. A. Thomson, F.R.C.S.; W. Walker, F.R.C.S.; S. Warren, M.D.; W. D. Wilkes, Esq.; F. Whitwell, Esq.; G. G. Whitwell, M.B.; R. H. Williams, Esq.; M. A. Wood, F.R.C.S.; A. W. Wordley, Esq.; T. A. Wotherspoon, M.D.; C. St. John Wright, M.B.

The following have sent ten shillings each :—

J. A. Aitkens, Esq.; W. H. Allchin, M.B.; J. W. Anningson, Esq.; Alex. Ballantyne, M.D.; G. R. Barnes, M.D.; F. A. Best, Esq.; R. A. Billiald, Esq.; W. E. Baylie, Esq.; G. Birt, M.B.; F. Blackman, Esq.; R. Blaikie, Esq.; A. R. H. Bland, M.D.; W. H. Booth, Esq.; F. A. Bond, M.S.; R. W. Bower, Esq.; C. B. Brown, M.B.; R. Buswell, Esq.; J. Brown, Esq.; J. Browne, J. P.; T. J. Burroughs, M.D.; H. Bass, M.D.; William Carter, M.D.; L. Clapham, Esq.; T. Clark, Esq.; B. Clarke, F.R.C.S.; G. B. Collett, Esq.; J. Cook, M.D.; C. W. Cooper, M.B.; A. Cooper, Esq.; R. Corbet, Esq.; M. A. B. Corbie, F.R.C.S.; G. G. Corbould, Esq.; D. Cowie, M.D.; G. H. Coveney, Esq.; Edgar Cox, Esq.; C. P. Creed, Esq.; W. H. Crossley, Esq.; G. H. Daly, M.D.; C. Davidson, F.R.C.S.; G. H. Davis, Esq.; A. D. Deane, Esq.; J. Dearden, M.D.; R. B. Dunlop, Esq.; B. Edwards, Esq.; W. England, M.D.; W. Evans, Esq.; Abel Evans, Esq.; H. Evison, Esq.; T. R. Fendick, Esq.; J. S. Ferris, M.B.; R. W. Garnham, Esq.; J. H. Gordon, Esq.; J. H. Gornall, Esq.; T. A. Gray, Esq.; A. C. Grieve, Esq.; E. Halford, F.R.C.S.; B. S. Hanbury, M.D.; A. Harnett, Esq.; V. D. Harris, M.D.; E. Harrison, Esq.; W. H. Hartill, Esq.; R. Heslop, Esq.; G. C. Hope M.D.; W. R. Hill, M.D.; J. P. Hodgson, M.D.; C. W. Izod, Esq.; J. Jackson, Esq.; J. F. Jackson, Esq.; C. Jewell, Esq.; F. E. Jones, M.D.; F. J. Joynes, Esq.; J. E. Kent, Esq.; H. W. Kialmark, Esq.; C. King, Esq.; J. Kirkman, M.D.; H. J. Knight, Esq.; H. M. Langdale, Esq.; H. Lapton, Esq.; J. Lampton, F.R.C.S.; E. J. Leverton, Esq.; M. Lloyd, Esq.; J. Loane, Esq.; S. Lockie, M.D.; S. P. Lowdell, Esq.; J. G. Longstaff, M.D.; W. C. Luffman, Esq.; A. Maclean, F.R.C.S.; R. C. Maclagan, M.D.; S. W. McDowal, M.D.; E. McCraith, Esq.; G. Mackay, M.D.; S. R. Manby, Esq.; G. May, M.B.; T. H. Meikee, M.D.; R. H. Meade, F.R.C.S.; G. Mickley, M.A.; H. Moore, Esq.; J. E. Morris, Esq.; A. Morison, M.D.; T. Morton, M.D.; W. W. Morgan, M.D.; W. Mott, Esq.; A. W. Nankivell, F.R.C.S.; T. Nash, Esq.; W. Neal, Esq.; C. Nind, Esq.; F. Nicholl, M.D.; L. J. O'Neill, F.R.C.S.; C. Orton, M.D.; J. A. Owles, M.D.; J. M. Owen, Esq.; J. Page, Esq.; G. C. Parnell, Esq.; E. H. Pettifer, Esq.; S. B. Pellew, Esq.; H. Piers, E.q.; T. H. Redwood, M.A.; C. J. Renshaw, M.D.; R. L. Roberts, M.D.; J. W. Rougton, Esq.; D. Russell, M.D.; J. W. Rue, M.D.; C. K. Rudge, Esq.; A. Samuelson, M.D.; W. J. Seofield, Esq.; W. B. Sealy, Esq.; W. Shaw, Esq.; M. Shirley, Esq.; F. D. A. Skae, M.D.; H. J. Skelding, Esq.; W. A. Smith, M.A.; J. F. Stafford, Esq.; S. H. Steel, M.B.; M. Steele, M.D.; G. H. Symes, M.D.; J. Thompson, Esq.; T. W. Thrasfield, M.D.; F. Trevan, Esq.; W. M. Troundale, F.R.C.S.; G. St. G. Tyner, F.R.C.S.; C. S. Vach lt, M.D.; C. Walter, Esq.; J. Watson, M.D.; G. T. B. Watters, M.D.; S. H. Webb, F.R.C.S.; A. M. Wedderburn, M.D.; G. F. Wellington, M.D.; W. F. West, Esq.; A. Wheeler, Esq.; H. Williams, Esq.; W. Wood, F.R.C.S.; J. L. Worship, Esq.; R. Wotton, Esq.; J. K. Wynne, M.D.

The following have sent seven shillings and sixpence each :—

H. Malins, M.B; T. D. Paradise, Esq.; W. Sankey, M.D.

The following have sent five shillings each :—

H. Adcock, Esq.; F. R. T. Allen, M.D.; H. E. Armstrong, Esq.; H. A. Auchincock, F.R.C.S.; E. G. Bartlam, F.R.C.S.; M. S. Barton, Esq.; E. W. Bawtree, M.D; C. W. Beresford, Esq.; H. Bingham, M.D.; A. A. Blakiston, Esq.; G. F. Blake, Esq.; O. Bowen, Esq.; J. Boyton, Esq.; W. A. Bralley, M.D.; — Brooks, —; J. S. Bootiman, Esq.; A. Bossell, M.D.; A. H. Buck, Esq.; T. A. Buck, M.B; S. G. Bull, Esq.; C. G. Bunn, Esq.; W. M. Burman, Esq.; P. B. Burroughs, Esq.; J. S. Berry, M.D.; J. Carnegie, M.A.; T. Cary, Esq.; E. Casey, M.D.; T. Cassan, Esq; H. N. Chilcote, Esq.; J. Clare, Esq.; A. C. Clarke, M.D.; S. T. Cobbold. Esq.; F. Coley, M.D.; F. E. Cockell, Esq; E. Cook, Esq.; J. W. Craig, M.D.; J. Crerar, Esq.; G. Crichton, M.D.; A. Crighton, M.D.; J. R. Crease, F.R.C.S.; A. Croker, Esq.; T. P. Daniel, Esq.; W. E. Dickinson, Esq.; R. Douglas, M.B.; W. N. Drury, M.D.; W. Duncan, M.D.; S. Edwards, Esq.; M. J. Egarr, Esq.; G. H. Elliot, Esq.; G. Foot, Esq.; J. Ford, Esq.; J. Fraser, M.D.; J. W. Fry, Esq.; W. F. Fryer, M.D.; L. Fuller, Esq.; J. E. Games, M.D.; A. N. G. Gibbs, Esq.; J. Gibson, M.B; B. F. Giles, M.D.; T. C. Gilmore, M.D.; J. H. Gilmour, Esq.; W. T. Gridlestone, Esq.; R. V. Gorham, Esq.; W. Grislock, M.D.; T. Griffin, Esq.; A. W. Green, Esq.; G. Handcock, Esq.; J. W. Haward, Esq.; E. Harris, Esq.; J. Hamilton, M.D.; G. Harrison, Esq.; H. Hemsted, Esq.; F. A. Heygate, Esq.; J. C. Heaven, Esq.; R. Hickman. Esq.; A. P. Hills, Esq.; J. Horne, M.D.; W. H. Hubert, Esq.; J. Hudson, Esq.; T. J. Hughes, M.D.; W. L. Hunter, M.D.; H. F. Hurst, Esq.; Hugh Ivers, Esq.; J. R. James, Esq.; H. James, F.R.C.S.; C. W. Jenner, F.R.C.S.; G. S. Jolliffe, Esq.; J. Johnson, Esq.; T. E. Jones, Esq.; L. Joyce, Esq.; H. Kay, Esq; H. Kennedy, A.B.; L. Kerigan, Esq.; H. Le Cronier, Esq.; E. G. F. Llewellyn, Esq.; R. Lord, M.D.; T. B. Luscombe, Esq.; W. E. Luscombe, Esq.; M. Macnamara, Esq.; H. MacNico, Esq.; S. M. Malcomson, Esq.; G. H. Malim, Esq.; R. Maples, Esq.; F. F. Martin, M.B.; H. A. Martin, M.D.; R. S. Martin, Esq.; W. N. Mason, Esq.; W. May, Esq.; W. H. Meadows, Esq.; J. W. Meek, M.D.; R. Meikle, F.R.C.S.; J. Morley, Esq.; T. S. Morley, M.D.; W. H. Murray, M.D.; E. J. Murtagh, Esq.; W. B. Mushet, M.B.; W. H. C. Newnham, M.A.; A. J. Newman, Esq.; J. Oakley, Esq.; H. O'Neill, M.D.; J. Oliver, Esq.; J. A. Osborne, M.D.; S. Partridge, Esq.; J. Peake, Esq.; A. B. Pollock, Esq.; W. Pollock, M.B.; P. Purves, M.D.; J. P. Purves, Esq.; J. S. L. Place, Esq.; H. Rainbird, Esq.; R. Reynolds, Esq.; R. T. Risk, F.R.C.S.; J. D. Robertson, M.D.; J. B. Ronaldson, Esq.; J. M. A. Ross, Esq.; W. Row, Esq.; J. W. Rowland, Esq.; W. A. S. Royds, Esq.; G. M. A. Rudkin, Esq.; T. J. Saunders, Esq.; A. Sheen, M.D.; A. S. Shout, Esq.; J. Shaw, M.D.; E. W. Shephard, Esq.; A. B. Sincock, Esq.; W. H. Sissons, Esq.; C. W. Smith, Esq.; R. S. Smith, M.D.; G. S. Stansfeld, Esq.; E. A. Starling, Esq.; J. A. Storey, Esq.; J. D. Styrap, Esq.; B. C. Sykes, M.D.; R. Sykes, Esq.; J. M. Taylor, Esq.; A. Tattey, Esq.; A. Thorn, jun., M.D.; E. Treves, Esq.; A. H. Twining, Esq.; J. Tily, M.D.; J. Todd, Esq.; A. Upton, Esq.; T. S. Upton, Esq.; T. G. Wales, Esq.; T. R. Walker, M.D.; E. G. Wake, M.D.; W. Warrener, M.D.; E. T. Watkins, M.D.; R. W. Watkins, F.R.C.S.; T. H. Watson, M.B.; A. Williams, M.D.; J. L. Williams, M.B.; H. Willson, Esq.; J. G. W. West, Esq.; J. Wigmore, M.D.; A. K. Willis, Esq.; T. Wilson, Esq.; G. Willis, M.D.; W. Willis, M.D.; E. A. Wood, Esq.; W. R. Woodman, M.D.; C. J. Workman, M.D.; H. Wright, Esq.; W. Wylie, Esq.

E. G. Gilbert, M.D., 3s. 6d.

The following have sent two-and-sixpence each :—

M. Britton, M.D.; W. A. Caskie, M.A.; G. Chapman, Esq.; H. Davis, Esq.; E. English, Esq.; J. Farrar, Esq.; J. Frain, M.D.; J. Holt, Esq.; A. Kelso, Esq.; H. E. Maberley, M.A.; G. Macdonald, Esq.; R. T. Manson, Esq.; W. J. Meharry, Esq.; H. P. Oliver, E.q.; T. S. Parry, M.B.; J. B. Pike, Esq.; W. Mortimer, M.D.; J. B. Norris-Cave, Esq.; J. K. Poole, Esq.; W. C. Reed, M.D.; M. Shurlock, Esq.; J. Simpson, F.R.C.S.; A. L. Smith, Esq.; F. C. Spackman. Esq.; J. J. Stack, Esq.; C. E. Steele, Esq.; H. B. Stoney, M.B.; J. H. Thomas, Esq.; R. Worrall, M.D.; M. Tuke, Esq.

Other smaller sums have been received from :—

A. Macaulay, M.B.; J. Walton, M.B.; A. Pearse, M.D.

F. A. MAHOMED, R. W. BURNET, } Hon. Secs.

Erratum.—In our last week's list the name "T. John Griffith, M.D.," should have been "John T. Griffith, M.D."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ASHWORTH, J. HENRY, F.F.P.S.Glas., M.R.C.P.Ed., L.S.A.Lond., has been appointed Medical Officer of Health for the Hulstead First Rural District, Certifying Factory Surgeon for Halstead, and Surgeon to the Halstead Industrial School, vice Hinds, deceased.

BUTLER, GILBERT E., M.R.C.S., has been appointed Senior House-Physician and Chloroformist to the Westminster Hospital.

DILLON, JOHN T., M.D., M.Ch.Q.U.I., has been appointed Medical Officer to the Workhouse, Listowel Union.

GODDARD, THOS. ERNEST, L.R.C.P.Lond., M.R.C.S., Ass. K. Coll. Lond., has been appointed Resident Medical Officer and Registrar to the North London Hospital for Consumption, Mount Vernon, Hampstead.

HILL, ALFRED BOSTOCK, M.D.Giess., L.R.C.P.Ed., L.S.A.Lond., has been reappointed Public Analyst for the Borough of Leamington Spa.

LEE, G. T., M.R.C.S. & L.S.A.Lond., has been appointed Assistant-Surgeon to Fisherton House Asylum, Salisbury.

MUMBY, LANGTON P., M.R.C.S., L.S.A.Lond., has been appointed Junior House-Physician to the Westminster Hospital.

NANCE, A. STANLEY, M.R.C.S., has been appointed Junior House-Surgeon to the Metropolitan Free Hospital, Spitalfields, vice C. J. Power, promoted to Senior House-Surgeon.

POLLOCK, WM. RIVERS, M.R.C.S., has been appointed House-Surgeon to Addenbrooke's Hospital, vice Sheild, resigned.

POWER, C. J., M.A.Cantab., M.R.C.S., L.R.C.P.Lond., has been appointed Senior House-Surgeon to the Metropolitan Free Hospital, Spitalfields, vice J. Orford, resigned.

PULLING, HERBERT J., M.R.C.S., has been appointed House-Surgeon to the Westminster Hospital.

ROUGHTON, E. W., M.B.Lond., M.R.C.S., has been elected House-Physician to the Northern Hospital, Liverpool.

SWAIN, JAMES, M.R.C.S., has been appointed Resident Obstetric Assistant to the Westminster Hospital.

THURSTAN, EDW. PAGET, M.D.Cantab., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Tunbridge Wells Provident Dispensary, vice Johnson, resigned.

WINTER, W. H. T., M.R.C.S., has been appointed Surgeon to the Police Force at Wolverhampton.

WRIGHT, JOHN F., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Second District of the Alton Union.

Births, Marriages, and Deaths.

BIRTHS.

DAVIES.—On the 31st ult., at Cwm-dws House, near Newport, the wife of W. H. Davies, L.R.C.P. &c., of a son.

EASBY.—On the 30th ult., at Bolingbroke-grove, Wandsworth-common, S.W., the wife of William Easby, M.D., of a daughter.

FRANKLAND.—On the 5th inst., at Grove House, Pembridge-square, W., the wife of Dr. Percy F. Frankland, B.Sc., of a son.

STOCKS.—On the 6th inst., at Courland, Wandsworth-road, S.W., the wife of Frederick Stocks, M.R.C.S., of a son.

WEST.—On the 7th inst., at Wimpole-street, Cavendish-square, the wife of Dr. Samuel West, of a daughter.

MARRIAGES.

CARPENTER—JONES.—On the 9th inst., at the Cathedral Church of St. Peter, Exeter, Arthur Bristowe Carpenter, M.B., M.A.Oxon., eldest son of Dr. Alfred Carpenter, of Croydon, to Florence Annie, second daughter of Samuel Jones, of Exeter.

COLLINS—O'GRADY.—On the 2nd inst., at St. Peter's, Bournemouth, Henry B. Collins, Surgeon R.N., Royal Hospital, Haslar, to Ioni, only child of the Rev. E. G. O'Grady, formerly of Mungret, County Limerick.

COLLYNS—BAGLEY.—On the 2nd inst., at 1, Prestbury, Cheshire, by the Rev. Canon Wilson, M.A., Vicar, William Collyns, Esq., M.R.C.S.Eng. & L.S.A.Lond., &c., of Park-street Villa, Macclesfield, to Harriett, widow of James L. Bagley, Esq., of London, and youngest daughter of Adam Wilde, Esq., of Macclesfield. No cards.

HOWLETT—HUTCHINS.—On the 3rd inst., at the Parish Church, Gnosall, Staffordshire, Edmund Henry Howlett, F.R.C.S., of Hull, youngest son of Major-General A. Howlett, C.B., to Amy Lavinia, only daughter of the Rev. Richard Masters Hutchins, of Stocklynch, Ilminster.

DEATHS.

GARRINGTON.—On the 7th inst., at Southsea, William Hawkins Garrington, M.R.C.S., L.S.A.Lond., aged 79.

JONES.—On the 5th inst., at his residence, Ladbroke-square, W., Walter Jones, M.D., formerly of Finsbury-square, aged 66.

TEMPLE.—On the 2nd inst., John De Liefde Temple, M.D., son of the Rev. J. de Liefde, aged 41.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Jan. 10th, 1884.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan.	4	30·05	S.W.	49	48	..	52	47	·09	Overcast
,,	5	30·06	S.	49	48	..	50	46	..	Overcast
,,	6	29·79	S.W.	50	49	..	53	44	·07	Cloudy
,,	7	29·99	W.	45	44	..	49	44	..	Hazy
,,	8	30·23	W.	41	39	..	50	37	·05	Cloudy
,,	9	30·32	W.	46	45	..	53	39	·12	Cloudy
,,	10	30·47	W.	46	44	..	50	44	..	Cloudy

Medical Diary for the ensuing Week.

Monday, Jan. 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M. and on Thursday at the same hour.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Meeting.

MEDICAL SOCIETY OF LONDON.—Mr. Pick, "On Amputation at the Knee-joint by means of Lateral Flaps."—Professor Alexander Ogston (of Aberdeen), "On a New Operation for Flat Foot."—Dr. Day will show a Case (in the Library) of Pulmonary Stenosis in a Child.

Tuesday, Jan. 15.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 P.M., and Thursdays at 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. S. Poole, "On Coins and Medals."

PATHOLOGICAL SOCIETY OF LONDON.—The following specimens will be shown:—Two Cases of Mediastinal Growth; Mollities Ossium and Rheumatic Arthritis; Sections of Galls; Sporadic Cretinism; Entozoon in the Lungs of Animals; Fibroid Heart; Carcinoma of the Œsophagus; Unusual sized Calculus in a Child (card).

Wednesday, Jan. 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays, at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.—Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations 2½ P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.—Skin Department: 1.45 P.M., and on Saturday at 9.15 A.M.

Thursday, Jan. 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Pauer, "On Music for the Pianoforte," &c.

HARVEIAN SOCIETY.—8.30 P.M. Annual Meeting: Election of Officers, President's Address, and Conversazione.

Friday, Jan. 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

CHARING-CROSS HOSPITAL MEDICAL SOCIETY.—8 P.M. Mr. C. W. Heaton, "On some Points in Urine Analysis."

ROYAL INSTITUTION.—9 P.M. Professor Tyndall, "On Rainbows."

Saturday, Jan. 19.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Morley, "On Life and Literature under Charles I."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

SLOP DIET.

DR. INGLE has asked for some fuller explanation of our views upon slop diet, and especially in regard to our recommendation of water as "the best" of all slop diets. The objects aimed at in giving slop diet may be—(1) depletion of the system by cutting off the supply of nitrogenous and combustible material; (2) the securing of rest to the digestive organs; (3) the avoidance of the ills which follow upon the taking of food upon which the digestive and assimilative organs are unable, through debility or actual disease, to exert their full function. Experience has shown that cutting off all food from healthy men causes death in about five days, and is attended with great suffering. If water alone be allowed the suffering is very greatly lessened, and life can be prolonged for about the same number of weeks. The introduction of water entails no "work" upon the digestive or assimilative organs, and therefore it admirably fulfils the conditions of "slop diet," whether required for any one of the three objects mentioned above. It is therefore the best "slop diet," and we believe that as such it is not sufficiently appreciated by the profession. Saline solutions stand next in order of merit requiring no "digestion," and undergoing little, if any, change when passing through the assimilating organs. Saccharine solutions must rank next; they are readily absorbed, but possessing distinct nutritive value, they are not so depletive as water, and, moreover, being liable to undergo fermentation in the alimentary canal, they do not afford such complete rest to that organ. They also have the disadvantage of being less palatable than the former. Decoctions of starch require distinct "digestion" and "assimilation," possess a high nutritive value, if unabsorbed are liable to fermentation, and may leave a considerable residue of undigested matter to pass along the intestines. Solutions of albumen must be placed at the bottom of the list as requiring digestion and assimilation, and as possessing the highest nutritive value, being "tissue forming" as well as "force-producing."

Mr. R. Gerner.—We fear we shall be unable to find room for the communication.

Mr. Langley is referred to a general notice at the head of this column.

ADVERTISING DENTISTS AND THE COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—A few days ago I was surprised to see a flaming advertisement occupying a prominent position in a railway station with the name of a L.D.S. R.C.S. Eng. attached to it. I thought it would be the best plan to acquaint the College with the fact, in order that it might immediately put a stop to such a nefarious practice on the part of one of its licentiates. I am also surprised to find he is a member of the Odontological Society. I enclose a copy of my reply from the secretary. Comment on my part is unnecessary.—I am, Sir, yours truly,

January 2nd, 1884. ANTI-HUMBUG.

[COPY.]

"Royal College of Surgeons of England, Lincoln's-inn-fields, W.C., Dec. 21st, 1883.

"Sir,—In reply to your letter of the 20th inst., I have to acquaint you that, although advertising in the manner referred to by you is greatly to be deprecated, it is not in the power of this College to take any steps in the matter.—I am, Sir, your obedient servant,

"FRED. J. HALLETT, Assistant Secretary."

*** The College in this matter has perhaps more power than it gives itself credit for. It is to be regretted that it does not make some attempt to use at least its moral power with its licentiates to stay an evil which threatens to demoralise the dental section of the profession. ED. L.

THE SURPLUS OF THE BOWER AND KEATES FUND.

VARIOUS correspondents make suggestions to us for the disposal of the surplus of this fund, none of which we have reason to know have escaped or will escape the consideration of the committee. But even if the surplus were larger than it is likely to be, there are many objections to the establishment of a permanent defence fund. Mr. Buck, of Clapton-common, proposes the presentation of a testimonial to Messrs. Bower and Keates, but surely the very movement is a huge testimonial of the greatest value, and medical men are most honoured when they are well supported in doing their duty.

M. O. H.—The proportion of deaths to cases of scarlet fever varies widely, in accordance not only with the type of the disease, but also with the social and sanitary conditions of those attacked. The ratio of deaths to total completed cases in hospital is now available, based upon the statistics of hospitals for infectious diseases, but statistics of cases in general practice are not sufficiently recorded. In the metropolitan asylum hospitals 1892 cases of scarlet fever were discharged during the year 1883 by recovery or death, the recoveries being 1664 and the deaths 228. Thus the deaths were equal to 12·1 per cent. of the completed cases. It seems more than probable that the cases treated in hospital would include an undue proportion of severe cases, and if this be so the general average of mortality to total cases of scarlet fever would be less than the hospital ratio of 12·1 per cent.

THE MEDICAL DIRECTORY.

To the Editor of THE LANCET.

SIR,—I have just got the new Medical Directory. I would suggest an alteration in it; possibly in doing it in your columns it may be more likely to be accepted as a suggestion of importance. I have no wish to strip the calfskin from any man's recreant limbs, but I think that in a work like the Medical Directory *uniformity* should be observed. Many practitioners are fellows or members of various learned societies, the qualifications for which consist in a regular payment of one's subscriptions. But I think that you will agree with me, that while "Humble, John, M.R.C.S., Fell. Roy. Microscop. Soc.," is a most proper description, "Bull, Blatant, M.R.C.S., F.R.M.S.," is misleading, at all events to the numerous members of the public who are in the habit of consulting the Medical Directory, and the F.R.M.S. and M.R.M.S. convey a wrong impression of a diploma in the case of Mr. Blatant Bull, and not that he either does or supports microscopic work.

I shall be glad to have your opinion on this, for the Directory enters many men as "Mem. Roy. Micros. Soc." or Fell. of same, while Mr. B. Bull is in the very small minority as a user of mysterious letters. I think my name, as I sign this letter, will look more imposing by the important additions which next year may appear in the Medical Directory if you approve. I have only to pay my guineas, the societies will prosper. I enclose my card, and am for the moment, and this occasion only, Sir, yours obediently, JOHN HUMBLE,

January 1st, 1884. M.R.C.S., M.R.M.S., F.R.G.S., F.L.S., F.Z.S.

*** We should be glad to see all titles omitted from the Medical Directory but medical ones. Certainly all that are to be had by paying an annual subscription. The imposing and mysterious letters are very objectionable.—ED. L.

Mr. Arthur H. Wood, L.R.C.P. & S.E. may refer to an article published in THE LANCET of May 20th, 1882, p. 817.

MEDICAL OFFICERS OF HEALTH AND PATIENTS OF MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—I should like to know your opinion of the following case. The district medical officer of health called at a house where I had been attending some cases of scarlet fever, asked to see one of the children, examined her throat, and said to the mother, "Will you allow me to take this case?" He was told another medical man had been in attendance, and that if he was required he would have been sent for. He knew that I had been in attendance, as he spoke about it when he entered the house first. This gentleman is in the habit of examining patients attended by other medical men, but, so far as I am aware, this is the first instance of his touting for cases. I have written to him on the subject, but he denies having acted in an unprofessional manner.

I am, Sir, yours truly,

Jan. 8th, 1884. SURGEON.

Mr. F. B. Lee.—There appears to be no invariable rule in the matter.

Mr. Rickwood.—Next week.

"MODES OF DEATH IN THE EXECUTION OF ENGLISH CRIMINALS."

To the Editor of THE LANCET.

SIR,—As your correspondent, Mr. Kelly, has corrected (!) a quotation stated to have been made by Dr. Richardson on the subject of hanging, he will not, I am sure, object to being corrected himself. The quotation in question is neither shall "hang by the neck until dead" nor "shall be hung by the neck until dead," but "shall be *hanged* by the neck until dead."

I am, Sir, yours, &c.,

Bournemouth, Jan. 5th, 1884. PHYSICIAN

UNPROFESSIONAL ADVERTISEMENTS.

Medicus and others.—The advertisements should be brought under the notice of the bodies from whom the gentleman named holds his qualifications—to wit, all the corporations of Scotland, the Royal College of Physicians, the Royal College of Surgeons, and the Faculty of Physicians and Surgeons of Glasgow. Such advertisements by registered practitioners are utterly inconsistent with professional propriety.

"THE ST. PANCRAS FEMALE ORPHANAGE."

To the Editor of THE LANCET.

SIR,—In your current issue I see a letter signed "C. Worrel, Hon. Sec., St. Pancras Female Orphanage, Hampstead-road." I venture to think that Mr. Worrel would have acted more wisely in the interests of his institution had he refrained from an attack (for such it is, whatever he may call it) upon the London Temperance Hospital. Because nine cases of typhoid from the Orphanage recovered after treatment, as he supposes, by alcohol, and because out of twenty cases recently treated in the Temperance Hospital three ended fatally, he seems to conclude that the non-alcoholic treatment is inferior to the other. He is here assuming, without good reason, that a succession of severe cases treated with alcohol would also have recovered. With equal want of reason, he attributes the recovery of the nine to the use of alcohol. He further overlooks the fact that a number of the patients treated in the Temperance Hospital had been living under conditions unfavourable to health and physical stamina. Last of all, he ought to have added to the twenty cases and three deaths thirty other cases and one death, previously reported in connexion with this hospital; so that the mortality, instead of being 15 per cent., as he states, has really been 8 per cent. on the total number of typhoid cases treated, many of which were of the severest type. I may add, for the information of Mr. Worrel, and of others who may desire it, that the medical staff of this hospital are not restricted in the manner he supposes, the rules providing that they may administer alcohol as a drug when thought necessary by them; but they have not seen fit to act on this permission in any case of typhoid fever. One word more. That an outbreak of typhoid should have occurred in the St. Pancras Female Orphanage is suggestive of something seriously wrong in its sanitary arrangements, and if these have not been amended Mr. Worrel would be more usefully engaged in attending to their removal than in finding fault with an institution in which he professes to take a friendly interest.—I am, Sir, respectfully yours,

DAWSON BURNS, D.D.,
Jan. 7th, 1884. Hon. Sec., London Temperance Hospital.

Mr. Ernest Birt will find the reference he requires in Dr. W. Zuelzer's "Untersuchungen über die Semiologie des Harns," chap. i., pp. 15-20.

Exul.—The Crown Agents for the Colonies, Downing-street.

THE SEWAGE OF PORTSMOUTH.

To the Editor of THE LANCET.

SIR,—You are right in saying that the Town Council of Portsmouth in their sanitary wisdom have approved the "plan" of Sir Frederick Bramwell to improve the outfall. That "improvement" is simply adopting the primitive mode of discharging 4,000,000 gallons of filth from 130,000 persons into the sea daily, within breathing space of Eastney Barracks, fifty yards further into the sea at East Southsea. What a remarkable "improvement" that will be for sea-bathing, both at Southsea and Hayling Island. Corporate wisdom, however, sanctions the "plan" as a fit "improvement" for a fashionable watering-place, as the cost will only be a little over £3000 a year for pumping. That is not much perhaps to a corporation that has not a sixpence of settled income except from the rates, and is already burdened with debt that posterity will have to pay. Besides, as all the sewage of Alverstoke, Haslar, Gosport, Fareham, and Portsmouth Dockyard comes down the Harbour to Southsea Beach, it would be a pity to part with all the filth from Southsea and Portsmouth proper, as it can properly form a nice sanitary gathering fifty yards further into the sea, and of course a few yards further from the Barracks. Although the Corporation have shown so much wisdom in the matter, it remains to be seen if the Admiralty and War Department will sanction a plan that cannot possibly deliver the district from the inherent nuisance of fever. To do so will be an insult to sanitary science and a premium to disease. I am, Sir, your obedient servant,

Southsea, Portsmouth, Jan. 6th, 1884. W. HEMPSON DENHAM.

TYPHOID AT HEMEL HEMPSTEAD.

To the Editor of THE LANCET.

SIR,—In your issue of Dec. 15th you remarked on the occurrence of typhoid in Hemel Hempstead. Allow me to draw your attention to a lesson clearly taught by that outbreak—namely, the great necessity of compulsory notification. That the list published did not contain a record of all the cases is firmly believed here, and the irritation of mind thus produced is not favourable to careful investigation. What report can a medical officer furnish in the absence of the facts? and can any report be reliable that deals only with a part of them? I write on behalf of science, as science is a real sufferer when an outbreak of typhoid occurs, and dies out without leaving a trace or increased knowledge behind it. I am, Sir, yours truly,

Hill House, Hemel Hempstead, Herts, B. PIFFARD.
Dec. 24th, 1883.

THE HIND FUND.

General Practitioner.—We believe it is the intention of the committee to close this fund shortly; but until this is publicly announced subscriptions will be gladly received.

M. W.—The University of Berne grants the M.D. degree to foreign medical men without residence, but this does not give the right to practise. To obtain this right one must pass the State examination, as is the case with the German universities. For particulars about the examinations our correspondent should apply to Prof. Pfeiffer, of Berne.

Mr. G. G. Walker (Liverpool).—The letter must have miscarried, since we cannot trace it amongst our communications.

OUT-DOOR MEDICAL RELIEF.

To the Editor of THE LANCET.

SIR,—There is one error which, along with many others, your correspondent, "Poor Law," falls into—viz., that a person cannot be relieved in the workhouse without all his family being taken in also; hence the oft-repeated expression of "breaking up a poor man's home." Now, as a matter of fact, the Local Government Board's Consolidated Orders have made provision whereby in case of sickness boards of guardians and relieving officers can admit either the head or any member of the family, if sick, without necessarily taking in all the others; therefore the dread of breaking up the home disappears, and it is no more than if the patient were removed to a general hospital, and surely that would not be considered breaking up his home. For my part, I consider, after some twelve years' experience, that the advantages of in-door medical relief, except in very exceptional cases, so far outweigh any of its supposed disadvantages that I consider no case requiring food and stimulants, besides medicine, ought to be treated out of doors.

One of your correspondents recently wrote to the effect that one of the results of the general adoption of the action of the Whitechapel guardians would be to increase the out-patient department of the hospitals. Now, I venture to say that, if it should be so, it will be entirely the fault of the hospitals, and the remedy is in their hands. They have no need to treat or admit any persons who may be in receipt of parochial relief, for they are well provided for by the State. They have their own dispensaries and their own hospitals; not the old workhouse infirmary, but hospitals as complete in nursing arrangements, management, and design as any of our general hospitals.

I am, Sir, yours truly,

R. F. LLOYD, M.D., Medical Superintendent.
Lambeth Infirmary, S.E., Jan. 1st, 1884.

Rusty.—Handbook of the St. John Ambulance Association, by Surgeon-Major Shepherd; Esmarch's Lectures, or Weatherly's Lectures.

THE ACTION OF ATROPINE AND ESERINE ON THE EYE.

To the Editor of THE LANCET.

SIR,—In your Ophthalmological summary of the Annus Medicus, 1883, you state that "Wöltzke has made some interesting experiments on the tension of the globe. He finds that dilatation of the pupil is constantly followed by augmented tension, whilst contraction of the pupil is followed by diminished tension. Hence atropine augments and eserine diminishes tension; but he has determined the noteworthy fact that eserine in larger doses than those which were just sufficient to produce myosis causes increase of tension." Will you allow me to point out that in my "Essays in Ophthalmology," published in July, 1879, I gave an explanation of the excitation of glaucoma by atropine and of its relief by eserine, and I stated that eserine could also cause glaucoma, and showed the mechanism of its double action. I may add that my explanation of its relief of tension—namely, by its opening the valvular spaces in the ligamentum pectinatum—has been recently endorsed by Dr. Brailey. Trusting to your well-known sense of justice for the insertion of this note, I am, Sir, your obedient servant,

GEO. E. WALKER, F.R.C.S.
Rodney-street, Liverpool, Jan. 2nd, 1884.

Mr. Johnstone.—The matter is referred to in our present number.

Mr. E. D. Bauer.—The list was not enclosed.

THE TREATMENT OF CHOLERA.

To the Editor of THE LANCET.

SIR,—The two most objective symptoms (after vomiting and purging) in cholera are coldness of the surface and increased heat of the intestinal tract. A probable cause of these conditions is that the presence of Koch's bacilli cause, by mechanical irritation, inflammation of the mucous lining of the intestines; the consequent determination of blood to that region occasions coldness of the surface. By placing the patient in a hot bath, and keeping him there, giving at the same time cold water to drink, and injecting per rectum water of a low temperature, say 60°, we may expect to overcome the above conditions. If the existence of the bacilli is only possible when the temperature is high—above normal—by these means the cause of the disease itself may be removed—that is, if the bacilli be the cause, and not merely incidental. Any tendency to collapse occasioned by the reduction of the internal temperature will be successfully combated by the ingestion of some alcoholic stimulant.—I am, Sir, yours, &c.,

J. J. LAFFAN, Colonial Medical Service.
Larnaca, Cyprus, Dec. 17th, 1883.

"THE ANTI-VIVISECTION SOCIETY AND EXPERIMENTS IN SNAKE-POISONING."

To the Editor of THE LANCET.

SIR,—Business has prevented an earlier reply to the letter in your issue of Dec. 8th on the above subject. The writer of it seems to admit that for the last seventeen years he and some others have been making experiments in snake-poisoning without success. No antidote has been discovered. This is the old story, and we are of opinion there is no reasonable hope that any antidote will ever be discovered. Is it probable that any drug or combination of drugs will ever be found which can overtake the rapid action of the serpent's poison in the blood, and counteract the deadly potency of the venom on the vital powers? Even if a remedy was found which could mechanically outrun the swift current of the poison and chemically prevent the fatal effects on the system of the bite of a healthy, hungry, and vigorous cobra of India inflicted on the naked flesh, that remedy might not prove effectual in respect to the numerous other species of deadly venomous reptiles. The symptoms caused by their venom are not identical. It by no means follows that an antidote to the cobra would counteract the poison of the hamadryas, puff-adder, cerastes, fer-de-lance, labarri, rattlesnake, jararaca, habu, black-snake (acanthophis), &c., &c.

But even if this view is unreasonable, why experiment upon animals? It is not for the benefit of animals, but for man's benefit that the antidote is sought, and no toxicologist, no physiologist can dispute that experiments for the good of man are far better, less fallacious, and more conclusive when made upon man himself than when carried out upon animals of any species whatsoever. The proper study for mankind is man. Now, it has been asserted that no less than 20,000 deaths from snake-bites occur annually in India. What need is there for experiments on animals when there exists such a splendid field and ample opportunity for observation and experiment upon man himself by the many able physicians and surgeons throughout India, from the Himalayas to Cape Comorin, and the Indus to the Sunderbunds of the Ganges? During one fortnight in the year 1880 no less than 113 deaths resulted from snake-bites in fifty-two of the largest cities in the Punjaub—equal to nearly 3000 per annum. What occasion, then, is there for "experiments upon animals?"

Dr. Arthur Stradling, of the Royal Navy, hoping to discover a prophylactic, bravely and perilously experimented upon himself with the crotalus. Even Sir Joseph Fayrer doubts the possibility of ever finding an antidote to snake-poison. See his book "On the Thanatophidia of India."—I remain, Sir, your obedient servant,

GEORGE R. JESSE,
Hon. Sec., Society for the Abolition of Vivisection.

Henbury, Dec. 31st, 1883.

P.S.—The mungoose can be domesticated, and is an inveterate enemy and destroyer of snakes. I once possessed one. He was a very amusing and interesting little companion, and no cobras ventured on my premises.

Mr. W. Farrington (Nice).—The writer is an American physician, but we do not know his present address.

Mr. Butler (Castle Donington).—The paper, if sent, shall have attention.

A Sufferer.—We cannot depart from our rule.

"RINGWORM OF THE SCALP."

To the Editor of THE LANCET.

SIR,—"Puzzled" will find that the alcohol and ether will dissolve almost all the boracic acid ordered. The solution is a saturated one, and a few grains may remain undissolved at the bottom of the bottle. I only recommend this lotion as a good remedy for certain forms of ringworm, and often find that it fails to cure the disease, when oleate of mercury, and perhaps croton oil, should be used, as described in THE LANCET in 1880. I am, Sir, yours, &c.,

December 29th, 1883. ALDER SMITH.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir E. Lechmere, London; Sir W. Smart, London; Rev. D. Mustard, Hingham; Mr. W. H. Denham, Southsea; Mr. W. R. Leeming; Mr. M. Bloxam, Reading; Dr. J. R. Hamilton, Hawich; Dr. Hale White, London; Mr. Stormont, London; Dr. Broadbent, London; Messrs. Volckmann, London; Dr. Pavy, London; Mr. Keall, Bristol; Dr. Isambard Owen, London; Messrs. Collings and Son; Dr. S. Scott, Fort Curtis; Mr. A. H. Wood, London; Mr. Pritchard, Roseneath; Dr. W. S. Wills, New York; Mr. Godlee, London; Mr. Griffith; Mr. Manson, Darlington; Mr. Butler, Castle Donington; Dr. Duncan, London; Mr. G. G. Walker, Liverpool; Mr. C. Lunn, Edgbaston; Mr. W. Farrington, Nice; Dr. Fitzsimon, San Francisco; Dr. Gower, London; Messrs. Oliver and Boyd, Edinburgh; Mr. Buck, London; Mr. R. Wallace, Clapton; Messrs. Burgoyne, Burbidges, and Co.; Dr. R. N. Ingle, Cambridge; Mr. T. Bird, London; Dr. A. M. Shield, Dr. Roche, Kingston; Dr. Cameron, Dublin; Mr. Lowis, Sheffield; Mr. Whittaker, Derby; Mr. Donaldson, Burt; Messrs. Page and Co., Cardiff; Mr. Sergeant, Peterborough; Mr. C. Warne, London; Dr. Antioni, Italy; Dr. Bankier, Ashton-under-Lyne; Mr. Allcrop, Hemel Hempstead; Mr. Corbishley, Macclesfield; Mr. Cooke, Leeds; Dr. Symonds, Oxford; Mr. Mulliner, Leamington; Messrs. Tourier and Co., Brighton; M. Berthier, Paris; Mr. Pollard, Edinburgh; M. Baillière, Paris; Mr. Hulke, London; Messrs. Taylor and Co., Liverpool; Dr. J. Harley, London; Dr. O'Keeffe, Bury St. Edmunds; Mr. Ruckley, Wycombe; Mr. Frakes, Dudsbury; Mr. Webb, Bury; Mr. Brooks, Hull; Mr. Bowes, Whitehaven; Mr. Bangley, Dursley; Dr. Masters, Thaxton; Mrs. Markham, Portsmouth; Mr. Stafford, Holme; Mr. Knight Treves, Margate; Dr. Cullingworth, Manchester; Mr. Gabbitt, London; Dr. Robertson, Buxton; Mr. Berry, Wigan; Mr. J. W. Irvine, Colchester; Messrs. Fraser, London; Mr. Harper, Holbeach; Dr. Hassall, San Remo; Mr. Copley, Carr; Mr. Cotterill, Bicester; Mr. Ackworth; Messrs. Rahn, Ipswich; Messrs. Christy and Co., London; Mr. Miller, Edinburgh; Mr. Mundy, Birmingham; Mr. Russell, Liverpool; Dr. Heelas, Hampstead; Messrs. Rothera and Sons, Nottingham; Dr. Lucas, Ahmadabad; Dr. Goodhart, London; M.R.C.S., Bradford; Medicus, King's-cross; Physician; Sindbad (Dublin); M. O. H.; Surgeon; Anti-Humbug; Insomnis; Omega; Abbot; A Sufferer; Mater, &c., &c.

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